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ABSTRACT

The rapid increase in the number and variety of master's degree programs offered across the United States has generated a great deal of concern within the academy regarding the quality of these programs. This conference was designed to explore the numerous issues of quality and assessment at the master's level from a variety of perspectives. This volume of 18 contributed papers focuses on the areas of needs and objectives, curriculum design and delivery, the meaning of quality, extant standards of quality for accreditation, definitions of assessment and methods of assessment for master's programs. Methods of assessment are specific to two types of master's degree program: type 1 centers in advanced studies in an academic discipline, e.g., history, physics, and sociology; and, type 2 is professionally or vocationally oriented as in engineering, law, applied music, teaching or in a discipline in preparation for teaching. (RL)

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THE ASSESSMENT OF QUALITY OF MASTER'S PROGRAMS

March 1-3, 1979
at
University of Maryland University College
Center of Adult Education
College Park, Maryland

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INTRODUCTION

The rapid increase in the number and variety of master's degree programs offered across the United States has generated a great deal of concern within the academy regarding the quality of these programs. This conference has been designed to explore the numerous issues of quality and assessment at the master's level from a variety of perspectives. Though all the issues will not be resolved or even be discussed, it is our belief that such a forum will be productive and will generate thoughtful and deliberative approaches to the definition and assessment of quality at the master's level. The program schedule has been developed to consider needs and objectives, curriculum design and delivery, the meaning of quality, extant standards of quality for accreditation, definitions of assessment and methods of assessment for master's programs.

I would like to take this opportunity to thank Dr. Robert Kirkwood of the Middle States Association of Colleges and Schools and Dr. Michael J. Pelczar, Jr., of the Council of Graduate Schools in the United States, for their guidance and aid in the development of the program. I would also like to thank Ms. Nancy Hedberg for her invaluable administrative assistance on all aspects of the conference.

This volume contains contributed papers for the conference. An additional volume of Conference Proceedings will be mailed to all participants.

I would like to wish each of you an enjoyable three days in our attempt to understand and delineate the problems associated with the assessment of quality in master's programs.

Milton A. Grodsky

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THE VALUE AND MEANING OF PART-TIME MASTER'S PROGRAMS*

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A tempest has arisen between those graduate officers and faculty who feel that a part-time Master's program is almost certainly of lesser quality than a full-time program and those who are endorsing part-time programs to suit societal and community needs. The Council on Graduate Schools set the tone for a long while by stating in its influential treatment of the Master's degree that:

> Continued part-time study over a period of several years with no full-time attendance is discouraged.[1]

On the other hand, the Panel on Alternate Approaches to Graduate Education exults that a diversity has set in in Master's programs. The Panel's report describes the clientele for the Master's degree in a hymn to pluralism:

> The graduate student may be a police sergeant studying two nights a week in a criminology seminar, a housewife-part-time high school English teacher commuting by car once a week from her suburb to an urban university; a young man whose uninterrupted cycle of study commenced at public high school and led from a junior college to a state university; persons whose hope for a salary increment depends on the completion of another pair of credit hours; people whose lives are so variously harried--by anxiety about orals or ungraded bluebooks, or classes still to prepare--that they cannot themselves arrive at a coherent statement of their motivation.[2]

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*This paper was prepared for presentation to and delivered before the Conference on The Assessment of Quality of Master's Programs held from March 1 to March 3, 1979, at the University of Maryland, College Park, Maryland, under the joint sponsorship of the Commission on Higher Education of the Middle States Association of Colleges and Schools, The Council of Graduate Schools in the United States, and the University of Maryland University College.

1. Council of Graduate Schools in the United States, The Master Degree (Washington, D.C., 1971), 9; Stephen H. Spurr in his Academic Degree Standards: Innovative Approaches, (Carnegie Foundation, 1970), 73-75, is silent on the issue of part-time study.
2. Panel on Alternate Approaches to Graduate Education, Scholarship for Society, (Princeton, N.J., 1973), 14-15.

The report claims great good comes from the recent developments in:

> .....that the graduate school embraces a variety of institutions and departments performing a variety of roles. We believe that the diversity of institutions is, potentially, the greatest source of strength the system possesses.[3]

William V. Mayville, in an evenhanded survey of the state of Master's degree programs, regards the criticism of part-time programs as "commonplace among those within graduate schools."[4] He questions whether this is a fair criticism as it seems to be "subject to the prejudice of academicians who only wish to teach Ph.D.-motivated students." The fundamental issue has become whether external pressures brought to bear on individuals to gain graduate credits or degrees should be a clarion call to colleges to create loosely-structured part-time degree programs to make it easy for them. Even a spokesman for the Panel on Alternate Approaches to Graduate Education seems to sound a note of caution in a brief report in Change magazine:

> It would be a mistake to cast the cause of change in graduate education wholly in a mold of do-goodism. Evaluating projects as contributions to the health of democracy can lead to atrophy of the imagination; the much abused slogans--learning for learning's sake, art for art's sake--contain an edge of truth, namely that the desire to do good is far from the most powerful spring to creativity.[5]

He goes on, however, to say in balance:

> But we do not believe that creativity will be harmed if graduate schools, in a manner appropriate to their distinctive character and function, become more conscious of their potential contribution in fostering "conjoint communicated experience" and aim

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3. Ibid., 15

4. William V. Mayville, A Matter of Degree: The Setting for Contemporary Master's Programs. AAHE/ERIC Research Reports (Washington, D.C., 1973), 9.

5. Benjamin DeMott, "Reforming Graduate Education," Change, February, 1974, 29.

> more directly at familiarizing themselves with the differences between accepted wisdom and current off-campus beliefs.[6]

The suggestion made there is not to expand every college's graduate programs as apparent needs arise, but rather to adapt program scheduling:

> Course sequences, residence regulations, and other institutional requirements should be adapted to meet the needs of students with family responsibilities, adult learners, professionals, those forced to pursue their studies intermittently, and others whose admission to graduate education and preferred patterns of study differ from those regarded as standard.[7]

Quality for the Panel then remains unaffected if only the style and hours of delivery change. But do other critics concerned for excellence find the adjustments acceptable? The shift in the balance of the graduate student population from the full-time to the part-time category* seems for the moment to have pre-empted set limits on the argument but the concern over maintaining high standards properly continues in Graduate Studies and Academic Affairs offices.

What can an institution with part-time Master's programs, or the desire to have them, do to anticipate and satisfy justified concerns over quality? Let me offer my personal list:

1) The college should make sure that present and intended part-time programs, just as its full-time programs, fit well into the institutional statement of mission and

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6. Ibid. 28.
7. Ibid., 28.

*Part-time students were 81% of the graduate students enrolled at institutions where the Master's degree is the highest degree offered and 53% of the graduate students at universities where the Ph.D. is the highest degree.
Survey by C.G.S. reported in A.A.S.C.U. Memo to Presidents.

goals. In the past, too many institutions sought self-funding (and profit-generating) part-time programs with separately hired adjunct faculty and dubious connection with the rest of the institution to help balance the budget. The institutional commitment must be strong; the move to self-funding and presence of some adjuncts should not, however, be viewed as an automatic bar to quality.

2) The college should make sure that the sequence of courses needed to support the part-time program are appropriate to the start/stop, connect/disconnect pattern of part-time student enrollments. It is possible that expenses of offering many fresh starts and necessary follow-up courses will increase rather than decrease costs unless student numbers rise substantially. Once students are admitted to a part-time program, the institution should honor the obligation to provide necessary course work at hours at which they can attend, despite the added expense.

3) The college that is offering part-time programs will surely have to alter its hours of course offerings to fit the working schedule of its new as well as its traditional students.

4) The college should consider the location of courses. Its decision to go off-campus, for example, rather than bringing students to the campus creates both opportunities for new clienteles and new problems of serving

student needs. How, for example, do the new students get to utilize library resources and laboratories?

5) The delivery system may have to change from the lecture move in order to involve older and experience-rich "new" students (and also quite frankly, to keep them awake after having worked all day). Though there is little research on their effectiveness, the college should offer some programmed learning techniques and video taped courses despite the probability of faculty resistance to them. The results in such courses should be compared with those in traditional courses and published to help other institutions plan and amend programs. How can higher education progress without research and experimentation? Do we really know how part-time and/or adult learners are best taught?

6) The college may have to make the costly decision to keep its student services and administrative offices open during evening hours and even on weekends. Part-time students need easy and regular access to the admissions office (or whatever other office is assigned the task of admitting), the registrar's office, the advising and counseling offices, the career planning office, and perhaps other units as well. They need to have ready access to the laboratories, the library, computer terminals and other academic support services. Since part-time students generally require more, not less, advice than full-time students, faculty should be prepared to remain longer

into the evening in order to provide office hours and drop-in time.

7) College procedures may have to change to provide for the admissions needs of part-time students as well as for the periodic "stop-out" which characterizes part-time learning. Residency requirements, if they still exist, will have to be scrapped or at least reinterpreted.

8) Most basic to quality part-time Master's programs is the determination that faculty who teach the courses will be the same as (or at least equal in stature and experience to) those who teach in the full-time program, that the level of courses be the same and that part-time graduate students will be admitted as carefully as their full-time colleagues.

9) Quality in graduate programs, as in programs at other levels, demands the integration of the material studied. I strongly favor a comprehensive examination, integrative project or paper or other means of determining that the student has put together in his mind the facts and approaches gathered from many courses. A Master's degree ought not to be a mere collection of courses taken and credits accumulated. I am less certain, however, as to whether a research experience culminating in a thesis should be required in every Master's program or whether a practicum, internship or other practical application of theory should be mandatory. The purpose of a program,

> not its part-time delivery, should, in my opinion, determine whether all or any of the experiences are appropriate. The decision is the institution's to make.

If the nine concerns discussed above are squarely faced, whatever the local judgment about them, the results ought to be part-time Master's programs which not only offer social utility but have academic value. Establishing programs which can be defended before quality-minded critics must be our goal.

The Design of Master's Programs in Baccalaureate Level Professions

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At the last conference of the Council of Graduate Schools in the United States, Piedmont (1978) posed a series of intriguing questions in his introduction to the sessions entitled Probing the Master's Degree. At the conclusion of the session, questions such as the following remained essentially unanswered: What is the level of competence or achievement that should be required? Should candidates be admitted to master's degree programs if they have not earned a bachelor's degree in the same field? What should be the standards for master's degrees in fields where there is no doctorate? The primary purpose of the ensuing discussion is to consider the *structure* of the master's degree in baccalaureate level professions and its impact on the integrity of the master's degree. This will provide an opportunity to explore some aspects of the above questions.

Problem Definition. A precisely defined problem serves as a prerequisite for solution giving. Problem description in this case depends on an understanding of the structure of the academic degree and of the professional curriculum. These frames of reference will be used to support the thesis that some baccalaureate level professions are perpetrating a degree structure that is incongruent with that of higher education, and that this disparity is having the net effect of devaluing the master's degree in that field.

The academic certification process is formalized in the awarding of academic degrees. Degree titles provide generic labels which summarize academic programs. According to Spurr (1973), two general principles are used to name academic degrees. The first principle is the level of academic achievement and is represented by the substantive hierarchy of associate's, bachelor's, master's, and doctor's degrees. The second principle used in

academic degree nomenclature is the nature of the course of study. This is represented by the qualitative distinctions made between programs emphasizing scholarship and those emphasizing professional skills. At the master's level, the academic degree terminates in either a Master of Arts (M.A.) or Master of Science (M.S.), while the professional degree terminates in a Master of ____ "(professional field)" or a Master of Science in ____ "(professional field)". Thus, the American degree structure provides for distinctions *between* levels based only on academic accomplishments and distinctions *within* levels based only on the nature and type of study undertaken.

The professions superimpose a professional educational structure on the academic degree structure, namely, the sequence of basic and advanced professional education. Basic professional education designates that required for entry-level practice. The professional curriculum should be thought of as encompassing the basic arts and sciences, in addition to, the professional sciences and their application. The minimum blend of these components deemed essential for entry-level practice is determined by the general consensus of the profession and is formalized in programmatic accreditation standards. Advanced professional education may be loosely defined as that beyond the basic. Its chief characteristics are that it is optional in regard to practice and that there is generally less consensus regarding its content. Within the professional context, therefore, educational distinctions are made in reference to educational requirements deemed *essential* as opposed to *desirable* for practice.

By definition a baccalaureate level profession maintains that its body of knowledge and skills and its values and norms may be adequately comprehended and applied with bachelor's level scholarship. Thus, it establishes a congruence between undergraduate and basic professional education (minimally) and between graduate and advanced professional education. This is represented by the pattern labeled 'Advanced Master's' in Figure 1. This pattern is followed by an individual who completed an undergraduate and graduate graduate program in the same profession.

Pattern		Bachelor's Level		Master's Level	Degree
'Advanced Master's'	=	Liberal Arts & Basic Professional Education	+	Advanced Professional Education and Graduate Requirements	M.A. M.S. M. in __ M.S. in __
'Basic Master's'	=	Liberal Arts	+	Basic Professional Education and Graduate Requirements	

Figure 1

Master's Patterns for Undergraduate Professional and Liberal Arts Graduates

Many baccalaureate level professions have found it advantageous to recruit college graduates. In order to attract these applicants and to provide a course of study designed to meet their needs, abilities, and experiences, basic professional education has also been instituted at the master's level. In this case, basic professional education is no longer identified with undergraduate education and advanced professional education is no longer synonymous with graduate education. This is depicted by the 'Basic Master's' pattern in Figure 1. This route is followed by an individual who has an undergraduate background in the liberal arts, followed by a master's program in a professional field. According to his diagram, it is clear that graduates of the 'Advanced' and 'Basic Master's' patterns fail to achieve the same level of professional achievement, since the advanced professional component is lacking in the 'Basic Master's' program, yet the same degree is awarded.

This application of different educational achievement criteria creates a double-tiered structure within the master's level, which is NOT provided for in the American degree structure. Although I have not undertaken a thorough study of the incidence of this 'abnormal degree structure' within the professions, it is evident in architecture, engineering, nursing, occupational therapy, and physical therapy.

At this point, we may profitably pose the question: In what sense can the 'Basic Master's' pattern be considered advanced education? Bent (1959) suggested that in a master's curriculum composed primarily of beginning level courses, the only 'advanced' characteristic is the age of the student. In a similar attitude, Kadushin (1965) applied a temporal criterion, that is to say, that it is advanced simply because it follows four years of undergraduate work. Despite these disparaging perceptions, the situation is usually not that grim in actuality. The graduate requirements, common to both degree patterns are designed to provide an advanced component. This may involve a thesis or special project for the expression of creativity and scholarship, a comprehensive examination to test overall knowledge, and/or additional coursework, usually in administration or research. However, the fact remains that there is no concerted effort to include advanced professional education objectives comparable to those demanded of students seeking a second professional degree at the master's level in that field.

Solution-giving. The problem presented for resolution is: Is there a way in which flexibility in educational entry points into a profession can be maintained while at the same time assuring the integrity of the master's degree ? The most apparent solution is to create a new structure and a new label for the 'Basic Master's' degree. This would be similar to the Certificate of Advanced Graduate Study awarded for achievement beyond the master's level that falls short of the doctorate. Spurr(1973) recommends the certificate to symbolize formal recognition of the completion of a course of study of lesser stature than required for the award of a degree. A Certificate in ____ "(professional field)" would seem to appropriately describe the 'Basic Master's' achievements. The master's degree would then be reserved exclusively for those completing both advanced professional education and graduate requirements. After completing a certificate, an individual could enroll in the master's program. To a certain extent, nomenclature distinctions have been attempted using the M. in ____ "(professional field)" and M.S. in ____ "(professional field)". However, these degree titles have not been applied with any regularity to the 'Basic or Advanced' degree patterns. Furthermore, the Council of Graduate Schools has recommended discontinuance of the doubly modified title.

A second solution may lie in a more adequate interpretation of the dimensions on which master's level education is to be distinguished from bachelor's level education. In the recently revised policy statement on the master's degree, the Council of Graduate Schools (1976) continued to indicate that "the master's degree is customarily awarded to an aspirant who achieves a level of academic accomplishment substantially beyond that required for the Baccalaureate degree (p.3)." However, a level of academic accomplishment substantially beyond the bachelor's level was not defined. The 'Basic and Advanced Master's' programs are similar in the completion of the graduate requirements. Perhaps it is not in the extent of content that similarity should be sought, but rather in the level of sophistication of the cognitive processes applied to knowledge. For instance, scholastic goals may consist of demonstrated proficiency in the higher intellectual skills, such as analysis, synthesis, and evaluation. Regardless of whether these cognitive processes are applied to basic or advanced professional knowledge, successful performance would be recognized by the master's degree. Following this line of argument

leads us to reduce the problem to one of semantics and public education.

The dual-entry model provided by business administration provides a third mechanism for accommodating diverse academic backgrounds upon admission and quality upon exit. According to the standards provided by the Accreditation Council of the American Assembly of Collegiate Schools of Business (1978):

> Master's degree programs in business administration must require students to have completed either at the undergraduate or graduate level, the equivalent of the common body of knowledge in business administration... For the MBA degree, it is expected that the program beyond that in the common body of knowledge shall be broad in nature and aimed at general competence for overall management. For the other master's degrees, the limitation on specialization will not apply (p.38).

Basic professional educational requirements are viewed essentially as prerequisites for advanced professional requirements, and both basic and advanced professional requirements must be completed for the master's degree. In some program formats the advanced professional component is taken after the basic, while in others the basic and advanced components are integrated. Students with an undergraduate preparation in business may have some courses waivered to avoid redundancy. Electives are then substituted for those required courses. Such electives may be used to remedy deficiencies existing in general education because of the professional courses taken at the undergraduate level. In this way, students with professional and non-professional undergraduate majors are put on a relatively equal footing.

Although all three proposals would remediate the 'structural degree abnormality' at the master's level, the last appears to be most in concert with the goals of an educational institution to educate scholarly practitioners capable of responding to increasingly complex societal problems. The standards set by the Engineers' Council for Professional Development (1976) and by the National Association of Schools of Public Affairs and Administration (1974), as well as, the descriptions of the nursing programs at Yale (Diers, 1976) and Stanford (Smith, 197[illegible]), and the occupational therapy curriculum at the

University of Southern California (Reilly, 1969) attest to the model's multidisciplinary feasibility and appeal.

Quality Indicators. In order to gain further insight into the needs of master's programs in baccalaureate professions, the 'structural degree abnormality' and the preferred solution to seek comparable educational outcomes for 'Basic and Advanced Master's' graduates will be viewed in relation to quality indicators--specifically, students, curriculum, and faculty. It has previously been mentioned that the impetus for intiating the 'Basic Master's' track was to attract high potential applicants to the profession. These applicants possess a personal and intellectual maturity lacking in undergraduates. The large pool of applicants and the selectivity of graduate admissions has the overall effect of improving the intellectual caliber of the professional field. Hence, the quality of 'Basic Master's' students is NOT negatively influenced by the 'structural degree abnormality'.

The effect on 'Advanced Master's'applicants may be quite different, however, particularly if the master's degree is the terminal degree in the field. Advanced professional education fulfils the function of educating specialists to apply the body of knowledge, scholars to advance it, and teachers to transmit it. If the 'Basic Master's' track is perceived as depreciating the master's degree in a professional field, potential 'Advanced Master's' applicants will prefer programs in other disciplines. Thus, the profession is deprived of leadership potential.

Considerable time has already been devoted to relating the 'structural degree abnormality' to the next quality indicator, the curriculum. Devising a structure to accommodate diverse applicant backgrounds requires clearly specified hierarchical objectives for basic professional, advanced professional, and graduate educational objectives. Initially in program planning, it would seem preferable to sequence rather than integrate the basic and advanced

elements. Once the 'Basic Master's' students complete the core courses, they can be tracked with the 'Advanced Master's' for advanced and graduate education. The high intellectual caliber of the 'Basic Master's' students is then challenged by a curriculum attuned to his/her abilities. This structure avoids having to establish two separate, and questionably comparable, curricula. It also establishes an interdisciplinary climate. The 'Basic Master's' students have an undergraduate mastery of knowledge in an academic discipline, lacking in the 'Advanced Master's'students which they can bring to bear on professional issues. Similarly, the 'Advanced' students can share their experiential learning and facilitate the integration of theory and practice for the 'Basic' students. The proposed curricular plan thus has positive implications for both categories of students.

The final quality indicator is faculty. The 'structural degree abnormality' results in particularly negative consequences if the master's degree is the terminal degree in that field. In this case, although 'Basic Master's' graduates have a restricted view of professional concepts, issues, and practices, they qualify for faculty positions. Hence, these narrowly educated professionals become the models of the young. This situation can establish a cycle that limits the effectiveness of practitioners and retards knowledge development. This cycle can be reversed by adding the advanced component to the 'Basic Master's' curriculum. The quality of faculty arising from 'Advanced Master's' programs would remain relatively unchanged by the curricular revisions, unless the advanced professional core is enriched by courses in the liberal arts.

Quality Control. Up to the present, most steps to correct or avoid dual master's level credentialing appear to have arisen from within a profession, via specialized accreditation, rather than within academia, via either general accreditation or self-study. This presents an interesting situation since the problem exists in academic certification, which is clearly the perogative of the educational institution. As the number of 'Basic Master's' students increases in a profession, and their impact begins to be felt, confusion is generated in the minds of professionals, within and allied to that profession; employers; and recipients of services, regarding the qualifications of these graduates. Hence, the profession begins to exert constructive pressure on the university for curricular change. This action may be perceived as intrusive by the university.

It is my contention that more preventative, assertive action, to improve standards on the part of those administering graduate education is not only in order, but would be welcomed. The baccalaureate level or emerging professions are relatively new to campus. This, coupled with the 'minds in a groove' orientation of professional schools or departments, results in an unfamiliarity with many aspects of the academic environment. This lack of perspective should be met with a more collaborative curricular planning relationship between the graduate administration and the professional department. This consultation is intended to focus on the structural aspects of the degree and professional curriculum and not on its specific content or processes.

Consultation in several broad areas appears desirable. The crux of resolving the dual master's standards lies in devising a curricular structure which accommodates diverse educational backgrounds. This necessitates a thorough appraisal of student capabilities at admission. Once this has been achieved, individual skills and abilities must be matched with a flexible curriculum. Learning formats such as self-paced study, concentrated learning, independent study, seminar-tutorial, and problem-centered study (Schein, 1972) facilitate such flexibility. The organizing principle for curricular restructuring emerges from the competencies desired of the practitioner operating at the advanced professional level. Once these are defined, learning experiences can be formulated to accomplish them. The image of curriculum building from the advanced to the basic level, rather than from the basic to the advanced, is critical and involves an essential gestalt switch. The goal is to arrive at a re-conceptualization of the curricular units rather than a mere re-arrangement of its parts.

In conclusion, I have spoken as an educator in a baccalaureate level profession, in favor of structural supports for academic excellence. A master's degree is a master's degree and should not be qualified by a basic or advanced knowledge base. Structure determines function. Realigning the advanced professional curriculum with the master's degree is designed to enhance competence in scholarly inquiry, as well as, professional skill.

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"MASTER'S PROGRAMS IN THE HUMANITIES"

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My wife read this paper over and expressed some alarm at the sarcastic tone she detected. She is in the real estate business and thus an idealist, who does not see the seamy side of life, but I assured her and assure you that my comments, though perhaps tinged with exasperation, are those of a lover of and true believer in graduate education.

The following observations on master's programs in the humanities are obviously impressionistic--there is no bibliography--but they are based on impressions derived over a period of almost twenty years' involvement in such programs, as graduate faculty member and administrator. These included "pure", or departmental, programs as well as interdepartmental and interinstitutional programs. I should qualify the discussion by noting that all this experience was gained in universities which also granted the doctorate. Whether the observations would be valid in an institution where the master's is the highest degree awarded I do not know.

In universities which grant the Ph.D. concern over the doctoral programs has become almost obsessive; very little time or thought is expended on master's programs. Graduate faculties, when they think about them at all, are inclined to regard them in the manner of a noble Englishlandlord viewing his poor cousins resident on his estate: they are acknowledged as his but with the vague wish that they would somehow go away. Graduate faculties have something more important to do, they feel, than worrying about the master's degree; that is to say, the important business of producing doctorates. And yet, interestingly enough, while enrollments for the doctorate have been in a remorseless decline -- for very good reasons -- master's programs, the poor relations, have held remarkably steady in many fields including my own and, if the truth were told, are in fact carrying, or keeping alive, many a sickly doctoral program. Furthermore, the benign neglect produced by focusing on the plight of the doctorate has allowed some interesting experimentation among master's programs. Since nobody cares about them they have been free to develop and flourish; whereas, let a graduate director attempt to meddle with one of the sacred totems of the doctoral program without extreme circumspection -- the foreign language requirement, let us say -- and his days in the job will be numbered.

Certain general objectives, I would argue, have emerged among master's programs in the humanities, even though the objectives have perhaps not been identified as such. Programs have been developed in response to certain demands or on a few rare occasions have even been planned because they were seen to be desirable educational policy. We realise, if we reflect on the matter, that we are effecting some things on the master's level. Why should we not recognize these things and get credit for having objectives, even if our behavior has been more like a chicken in a farmyard, pecking here and there for sustenance? I would summarize these objectives as including: (1) providing general education, (2) providing a winnowing mechanism for selecting doctoral candidates, and (3) providing quasi-vocational education. Some programs attempt all three of these, many only one or two.

The rejuvenation of the master's degree as a medium of general education is probably associated with the fragmentation of the typical undergraduate curriculum over the last decade or so, and the virtual disappearance of general education requirements at many schools. I suspect, but cannot prove, that these conditions affect the humanities more seriously than other fields; courses in the sciences or even the performing arts such as music or dance are, I would think, necessarily more sequential than those in the humanities where the smorgasbord approach to education operates to a grotesque degree. An undergraduate in the humanities may be taking in a given semester, say, courses in medieval English literature, stage lighting, marriage and the family, and the history of India, with an assortment similarly varied, equally uncoordinated, and entirely different the next semester. A student majoring in English may well emerge from college without having read a play of Shakespeare or a novel of Dickens or Faulkner or a poem of Keats. Or perhaps the student majored in a field so cluttered with requirements that there was no time for courses in the humanities, even if he or she wanted to enroll in them. For various reasons, then, many holders of the baccalaureate these days feel that their undergraduate education was inadequate or incomplete. Quite often they are employed full-time in non-academic pursuits or are housewives returning to school or are retired persons; in any case they have no vocational objectives involving their degree studies. They are there for the best of reasons, the love of learning. Significant numbers of these students are now applying for graduate work but the graduate faculty does not, on the whole, perceive their presence and certainly does little to assist their progress toward a degree. There is often, it is true, a problem associated with students such as these because of inadequate preparation; are we not lowering our standards if we let them in? This can be easily resolved by provisional admission: let them prove themselves under fire, so to speak, before they are admitted to a full degree program. Many of them, by virtue of their maturity and general experience in living, will turn out to be excellent students if my observation is any guide.

The graduate faculty is acutely aware of the second of the three objectives of a master's program as I have outlined them, to serve as a winnowing mechanism for doctoral candidates. This, indeed, hits the graduate faculty where it lives. A graduate director is besieged with complaints about this student or pleas for the assistance of that student, as the faculty fulfills what it takes to be its primary mission, to reproduce itself. Faculty members often do not perceive, or vigorously deny, that that is what they are doing, even as they go about it. "Now, I don't want to seem to be putting any pressure," they may say, "but Mr. X is the best student I have had in my seminar in years." Translated freely this means, "He has the same intellectual skills I have." Now, there is nothing intrinsically evil about this -- except as it contributes to the exclusion of minorities and women, which is plenty evil. The transmission of intellectual skills is of course a primary objective of graduate education generally. But to think of a master's program as primarily a

winnowing device for doctoral candidates, to say that the program exists for that purpose, is to rob the program of its intellectual content, to make it a sort of extended candidacy examination, and to confer second-class citizenship on those not judged to be "good enough" to be a doctor of philosophy -- many of whom have not the slightest interest in becoming said doctor of philosophy.

Related to this is of course the question whether graduate faculties should be so zealous in replicating themselves, at a time when, in my field, it is statistically certain that fifty percent or more of the students awarded doctoral degrees will not find permanent academic employment. But the obsessive concern about the doctoral program, to which I alluded earlier, has deep psychological roots and is not a problem that will conveniently liquidate itself. In a research department there is a quasi-parent/child relationship between graduate faculty and doctoral students. In a subtle but genuine sense these students are thought of as carrying on the traditions of learning and scholarship which we, the faculty, have inherited from our own scholarly mentors. This is an attitude so pervasive that it is difficult to counter. The chairman of our department and I recently attended a conference of chairmen and graduate directors in the South Atlantic region, on finding non-academic employment for our graduate students. My chairman pointed out the interesting fact that everyone there assumed the students in question were doctoral students; in fact, when she brought up the question of master's students finding jobs there was a long and embarrassing silence. No-one wanted to address the problem, or indeed, admit that there was a problem. This is an attitude that will be difficult to change and it colors the thinking of many faculty members, who will persist in believing that the primary objective, the only proper objective of a master's program is to identify those who are best suited to go on for a doctorate.

There has been a good deal of demand for, and some interesting experimentation in, programs which pursue the third objective I have spoken of, the quasi-vocational program. These combine the objective of general education with the objective of earning a living, and here are to be found some of the most innovative programs in graduate education today. These address directly the question, what does one do with a degree in the humanities?

Perhaps the oldest and most thoroughly tested of these programs is the venerable master of arts in teaching (the MAT). Designed for those in or hoping to enter secondary education, these offer graduate study in the primary field of learning along with courses which are intended to further the professional development of the student. Ordinarily this degree is offered by a humanities department in collaboration with the school of education. Johns Hopkins was, I believe, a pioneer in this degree program and it has been widely adopted, with great success in many places. Another interdepartmental program is that here at the University of Maryland in which the Department of History and the College of Library and Information Services have combined resources to produce a joint master's degree, the recipient of which is trained for positions such as archivist, manuscripts librarian, and the like. The University of South Carolina is just now preparing to offer a Master of Business Administration which has as an optional component graduate courses in the humanities, taught by the regular humanities departments.

Two small but interesting interinstitutional master's programs are to be found in Delaware, the Eleutherian Mills-Hagley program in the history of technology and the Winterthur program in early American culture. In both cases faculty members at the University of Delaware collaborate with staff members at the respective museums (Hagley and Winterthur). These programs are delimited chronologically by the periods covered in the respective museums' collections. Within those chronological/limits regular graduate courses are offered in the academic subject areas (English, history, art history, and so on) and museum training courses are provided by the museum staffs. These programs have had outstanding success in placing their graduates, many of whom have risen through the ranks to positions of authority in museums and historical societies.

In all candor I must admit that programs such as these face formidable obstacles. One should never underestimate the sheer labor of getting agreement on the curriculum between departments, colleges or even institutions with quite varying senses of mission. Staffing is likely to be a perpetual problem; finding faculty with the necessary flair and enthusiasm for interdisciplinary studies is not easy, and an apathetic staff can quickly kill a program. And funding is of course always likely to be or become an issue: a program which was the apple of one university president's eye may be a mote in the eye of his successor. Finally, there is faculty hostility. All programs such as these, as I have said, attempt to find answers to the question, What does one do with a degree in the humanities? Many graduate faculty members find this question offensive on its face. One doesn't do anything with a degree in the humanities, they would argue (except perhaps teach, since that is what they do). The degree is a measure of intellectual achievement, of and by itself, self-justified and self-justifying. The vocational aspects of programs such as I have described many faculty members find repellent. Nevertheless, nothing succeeds like success and we can expect increased interest among students pursuing this third objective: who want to study further the subject which they have come to love and yet who would also like to find steady employment, with paydays.

What of the future? I believe graduate departments in the humanities should continue to pursue all three objectives, though as my tone and manner of presentation no doubt indicated I wish graduate faculty members in the humanities generally would treat those of general education and quasi-vocational education somewhat more sympathetically and would minimize the fashionable handwringing about our "plight." As they used to say in the service, things are tough all over. Graduate education can grow and flourish in lean years as well as fat ones if we use the brains we have been given, which we have supposedly trained to such a peak of perfection.

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THE MASTER'S DEGREE IN THE SOCIOLOGICAL ENTERPRISE

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The goal of this conference is to assess the current role and meaning of the master's degree. Since higher education operates as an interdependent system, an evaluation of one component must take into consideration its relationship to the other parts of the system. The master's degree is unique in that it serves as a link, a kind of gateway joining undergraduate education to doctoral level graduate study. An examination of the role of the master's degree should consider the various paths joining bachelor's to doctoral degrees, through the intermediate master's level.

Master's programs vary in the extent to which they are integrated with doctoral level programs. Students using the master's as a bridge to the doctorate are not passing through identical gateways. Hence, we need to examine the career implications of enrollment in different types of master's programs. Further, the same master's program may have a diverse impact on different categories of students.

Ultimately, our analysis must grapple with major questions of the value of the master's degree itself. Under what circumstances is possession of a master's alone sufficient career preparation? What career disadvantages do individuals without a doctorate encounter? Any examination of the master's degree, however, is immediately complicated by substantial differences among the various disciplines and professions. The goals, methods, and educational requirements of academic and professional groups are so diverse that any attempt at generalization is seriously limited.

Our paper is based on a secondary analysis of the information reported in the 1975/1976 Directory of the American Sociological Association.[1] By focusing on this single population, we avoid the problems associated with trying to

generalize across different groups. We also hope to demonstrate the potential of professional directories and membership lists for research and policy analysis in higher education. Of course, our approach is limited to a consideration of those items reported in the Directory. Answers to many of the questions unresolved by our study will have to await followup primary data gathering efforts.

The Master's Degree as Linking Pin

Of all the master's programs in sociology, relatively few offer a M.S. degree.[2] Offering the M.S. instead of the M.A. seems mainly to be a result of historical factors. However, in some cases, the M.S. is a more quantitatively oriented, technical degree program. When we examine movement from the bachelor's to the master's degree (Figure 1), we find that students with a B.S. are significantly (χ^2=43.56, $p<.0001$) more likely to enter M.S. programs than B.A. students. This difference holds whether we consider students who have gone to the same school between the bachelor's and master's or those who have switched schools. While both the numbers involved in our sample and the unknown representativeness of the directory listings for the population of professional sociologists necessitate considerable caution in interpreting results, the findings do raise the question of the symbolic and content differences between the two types of programs.

Figure 1 charts the eight possible paths from bachelor's through master's to the doctoral degree. Among these A.S.A. members, educational paths vary in the probability of attaining the doctorate. The most efficacious sequence to a doctorate is via B.S. and M.S. degrees (4.3% dropout rate). The least effective path is via B.A. and M.S. degrees (31.6% dropout rate). Whether a student starts with the B.A. or the B.S., his/her greatest chance of continuing is with the analogous master's degree (M.S. for B.S. students; M.A. for B.A. students). If the content of the "science" degrees is indeed more technical than that of the "arts" degrees, students switching from B.A. to M.S. should have more difficulty in adjusting to the curriculum than students who attempt the M.A. after the B.S. In fact, dropout rates are higher in our sample for the B.A.-M.S. route. Clearly, the master's in sociology has differential impact on student careers, depending on type of degree program and may in other disciplines as well.

Another factor to consider in charting educational paths is the extent of regional and school mobility. After obtaining a bachelor's degree, students are almost equally split between those selecting an in-state (49%) versus an out-of-state (51%) master's program. But once enrolled in a master's program, a little under two out of three students (62%) will opt for a doctoral program in the same state. Almost all of those remaining in the same state (96%) moved into a doctoral program in the same school. Table 1 shows the distribution of our sample of American Sociological Association members according to type of inter-school mobility. The most typical pattern is to change schools after the bachelor's degree and then remain through the master's to the doctorate. It is very uncommon to attend the same institution for the bachelor's and doctorate, while selecting a different educational setting for the master's.

Table 1 also presents the proportion of students in each category who completed all of their undergraduate and graduate education in nine years or less. While attending a different institution for each degree may have certain advantages, such as broadening one's frame of reference, it substantially slows the rate of progress through the educational system.

An additional path toward a doctorate is to bypass the master's altogether. Only 13% (76) of A.S.A. members holding doctorates have dispensed with a master's degree. The omission of the master's for this group has had seemingly very little practical effect.[3] The only relationship we could discover (of the list of tested relationships in Table 2) was a greater tendency for doctorate holding sociologists with a master's to be department chairpersons.

The Value of the Master's

We might expect the implications of not holding the doctorate to be greater, however. A.S.A. members who have a master's as their highest degree are different in several ways from those who have earned doctorates (Table 2).[4] Females are much less likely than males to possess a doctorate. Individuals with only a master's are more likely to occupy the more peripheral position of associate member within the society. (As associates they are unable to vote or hold office.) Ph.D.'s as a group are also older (average age of 43 years for Ph.D.'s, as compared to 40 for master's; t(219)=2.85, p=.005). Self-identified Ph.D. candidates are not included in this analysis and so do not account for this difference. (Student A.S.A. members and associates were not coded in the study.) Association members who possess the master's as the highest degree also evidence significant differences in their career patterns. They are much more likely to be employed outside of academia. Within academia they are concentrated in the lower ranks. The difference in rank between doctoral and master's holders is maintained when controlling for age, though the only full professors with master's degrees are among the older cohort (born in 1933 or before). In addition, within academia master's holders are more likely to occupy a research position.

Type of Master's Degree

Among master's programs, an important distinction is between those universities where the master's is the highest degree and those where it is one phase of a doctoral program.[5] We have discussed this distinction in an earlier article.[6] Our current analysis has allowed us to make some additional observations about the two types of programs.

Results displayed in Table 2 show several differences between Ph.D. sociologists, depending on whether they obtained the master's degree in a terminal or nonterminal degree program. Compared to those who attended nonterminal programs, Ph.D.'s who completed a master's at a terminal institution are younger and concentrated in the lower ranks of academia. Neither of these differences is statistically significant, however, because the number of terminal degree holders is small (n=34). Professional socialization outcomes are broadly similar, since terminal Ph.D.'s are no more likely to be employed in a nonacademic setting. Those attending terminal programs earn their master's degree somewhat more quickly, and time periods from the bachelor's to doctoral degrees do not differ. The terminal degree program may thus provide the luxury of a "testing ground," where students can explore other career options, without committing more time to complete the doctorate. It may also be the case, of course, that terminal master's programs are less intellectually demanding and so require less time to complete.

However, attending a terminal master's program can affect the probability of earning the doctorate for certain types of students. Males are almost equally likely to complete the Ph.D. whether they attended a terminal (80%) or nonterminal (86%) degree program. The terminal master's program acts as a greater retardant for females, 46% go on to the doctorate from terminal programs, as compared to 66% from nonterminal programs ($p=.053$). Generalization of this finding is hazardous, since so few females attend terminal programs (n=13). Further research on the effect of different types of graduate programs on different types of students is needed.

For most students from both terminal and nonterminal degree programs, the Ph.D. still appears to be viewed as a necessary attainment for a professional sociologist. A minimum of 69% of the graduates from either of the two types of master's programs elected to go on for the doctorate for two time periods we considered. For those who earned a master's prior to 1963, however, enrollment in a nonterminal program was tantamount to eventually earning a Ph.D. (90% finished the doctorate). This was not as true at that time for terminal master's graduates (74% eventually earned the Ph.D.; $p=.06$, compared to nonterminal programs). Since 1963 the percentages of master's holders going on for the doctorate from both types of programs are more similar (72% from nonterminal and 69% from terminal programs; $p=.92$). Only for master's students enrolled in nonterminal programs has the dropout rate increased significantly since 1963 (10% for 1962 or before, as compared to 28% recently; $\chi^2=31.22$, $p<.0001$).

Our strong impression, based on our earlier work, is that the reasons for not continuing are very different in the two cases. Students in a nonterminal program operate in a normative climate where Ph.D. candidates are granted the highest status among students, and those who stop at the master's level will be seen as professionally incompetent. This normative enviornment creates strong pressures to continue on to the doctorate. Students in such programs do not often terminate their education voluntarily. A decision to stop at the master's level is most often a result of external factors. For example, recent reductions in university and departmental budgets have curtailed the number of stipends and fellowships in many graduate programs. This diminution of funds has, in turn, caused faculty to more stringently screen applicants for financial support. The students in a nonterminal program who do not continue are frequently "reluctant dropouts."

In contrast, students enter terminal programs recognizing at the outset that there is a good possibility that they will not continue beyond the master's. In fact, a portion of these students view the master's as a mechanism for advancing a career they have already begun. In addition, as mentioned above, other students enrolled in terminal programs are interested in "testing the water" in order to assess their suitability for doctoral level work. Hence, when students in terminal programs stop at the master's level, they are probably much more likely to do so voluntarily. Thus, while both types of programs currently produce roughly equal proportions of individuals with the master's as the highest degree, the implications are quite different. If these characterizations are correct, students who do not continue in nonterminal programs are more likely to emerge with negative feelings about themselves, the profession, and perhaps all of higher education. (Those who hold the master's as the highest degree are more likely to engage in nonacademic work than Ph.D.'s, as discussed earlier. This choice may be more a matter of necessity than desire for those who drop out of nonterminal programs.) At this stage, our interpretation is largely conjectural. Of course, our hypothesis is amenable to testing with attitudinal data in future research. Given the existing financial situation, in combination with the projections of a continuing oversupply of Ph.D.'s in various fields, terminal master's programs may have certain advantages over their nonterminal counterparts in the professional socialization process.

Conclusion

In sociology, as in other disciplines, the long term increase in the number of Ph.D.'s awarded has downgraded the master's degree. Caught as it is between minimal (bachelor's) and maximal (doctoral) professional training, its importance and career implications have remained nebulous. Our study demonstrates, however, that the master's has a unique and potentially important role in the development of student careers and professional identities. Further research should assess more directly present and possible future roles of the degree for participants in higher education.

Footnotes

1. The American Sociological Association, 1975/1976 Directory of Members. Washington, D.C.: A.S.A., 1975. We systematically sampled 10% of the pages of the directory, coding information on all names on a page, except that recorded for international members and associates and student members and associates. Thus, the results of our study can only be generalized to sociologists in the major active membership categories who responded to the A.S.A.'s request for information and not to all professional sociologists.

2. In the United States, 187 of 204 graduate departments offering master's degrees confer the M.A. degree (92%) (American Sociological Association, Guide to Graduate Departments. Washington, D.C.: A.S.A., 1976). Ten (5%) confer the M.S. degree, and seven (3%) will confer either the M.A. or M.S.

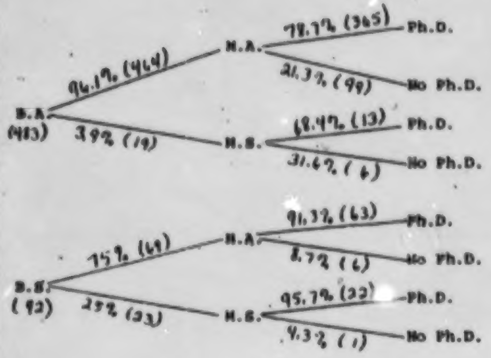
3. The finding of no significant differences among Ph.D. sociologists with or without a master's according to length of time from the bachelor's to doctorate differs from the situation of clinical psychologists. Van de Castle and Eichhorn (1961) found that clinical psychologists who completed a master's spent about two more years on the average between the bachelor's and doctorate. (R.L. Van de Castle and O.J. Eichhorn, "Length of Graduate Training for Experimental and Clinical Psychologists." American Psychologist 16, 1961:178-180).

4. In Table 2, chi-square values are presented only if $p < .05$. The differences in N's reflect missing data. The chi-square value for membership status is based on a full table, including three very small categories: member emeritus (29), member life (4), associate honorary (1).

5. In the United States, 94 of 209 graduate departments offer a master's as their highest degree (45%) (A.S.A., Guide to Graduate Departments, 1976). One hundred ten (53%) offer the Ph.D. with the master's, and five (2%) offer the Ph.D. alone. Thus, of Ph.D. schools, 95% offer the master's also and only 5% omit the master's. This is very different from psychology, where 64% of Ph.D. programs do not offer a separate master's program, but 51% require the student to obtain a master's. (Robert J. Howell and Maxine L. Murdock, "The Questionable Value of a Master's Degree for a Ph.D.-Pursuing Student." American Psychologist (July), 1962:647-651). We have no comparable information on degree requirements in sociology.

6. Julie Honnold, D. Paul Johnson, Hubert W. Oppe, and Allan Schwartzbaum, "The Meaning of the Sociology Master's Degree." Southern Sociologist 8 (Spring), 1977:5-7.

Figure 1. Educational Paths to the Ph.D. in Sociology



Dropout Rates in Rank Order

B.A.-M.S.-No Ph.D.=31.6%

B.A.-M.A.-No Ph.D.=21.3%

B.S.-M.A.-No Ph.D.= 8.7%

B.S.-M.S.-No Ph.D.= 4.3%

Table 1. Inter-school Mobility to the Ph.D. in Sociology

Type of Inter-School Mobility	Percent	N	Percent Taking 9 Years or Less From Bachelor's to Doctorate
Master's, doctorate same; bachelor's different school	41	(214)	66
Bachelor's, master's, doctorate different schools	28	(146)	40
Bachelor's, master's same; doctorate different school	16	(8[illegible])	63
Bachelor's, master's, doctorate same school	14	(74)	60
Bachelor's, doctorate same; master's different school	1	(6)	0

χ^2=32.83, p<.0001

Table 2. Type of Master's Degree, Personal Characteristics, and Career Patterns

Variables	Master's as Highest Degree	Ph.D. as Highest Degree	N	Ph.D. with Terminal Master's	Ph.D. with Nonterminal Master's	N
Sex						
Male	14%	86%	(624)	7%	93%	(411)
Female	30%	70%	(179)	7%	93%	(93)
χ^2=24.82, p<.0001						
Membership Status						
Member	49%	87%		79%	87%	
Associate	51%	13%		21%	13%	
N	(137)	(636)		(33)	(449)	
χ^2=114.75, p<.0001						
Birth						
1933 or before	41%	55%		38%	56%	
After 1933	59%	45%		62%	44%	
N	(133)	(649)		(34)	(461)	
χ^2=7.54, p=.006						
Bachelor's to Master's						
3 yrs. or less	50%	58%		76%	57%	
4 yrs. or more	50%	42%		24%	43%	
N	(1[illegible]9)	(523)		(29)	(433)	
Bachelor's to Ph.D.						
9 yrs. or less				59%	58%	
10 yrs. or more				41%	42%	
N				(29)	(435)	
Bachelor's Year						
1957 or before	42%	60%		47%	61%	
1958 or after	58%	40%		53%	39%	
N	(141)	(666)		(34)	(472)	
χ^2=15.81, p=.0001						
Master's Year						
1962 or before	29%	64%		41%	59%	
1963 or after	71%	36%		59%	41%	
N	(141)	(666)		(34)	(472)	
χ^2=55.06, p<.0001						
Rank						
Instructor	33%	0%		0%	0%	
Ass't. Prof.	41%	30%		47%	28%	
Assoc. Prof.	13%	29%		23%	30%	
Full Prof.	13%	41%		30%	42%	
N	(61)	(551)		(30)	(394)	
χ^2=188.84, p<.0001						
Employment						
Academic	62%	90%		88%	90%	
Nonacademic	38%	10%		12%	10%	
N	(125)	(620)		(33)	(435)	
χ^2=63.22, p<.0001						
Academic Position						
Research	9%	4%		0%	3%	
Administration	5%	6%		7%	6%	
Dep't. Chair	9%	13%		20%	13%	
Faculty	76%	77%		73%	73%	
Other	1%	0%		0%	0%	
N	(79)	(568)		(30)	(403)	
χ^2=11.60, p=.02						

THE CURRICULAR OPTION APPROACH
TO THE DESIGN OF MASTER'S DEGREE PROGRAMS

by

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Two broad models have dominated graduate academic programming throughout the recent past: the pigeonhole model which places students and faculty in mutually-exclusive categories and the wheel model which identifies a core of required knowledge lying at the hub of the discipline along with several specializations which are conceived as spokes radiating away from the hub. This paper will present a third alternative, the "curricular option" approach.

The essential prerequisite to the curricular option approach is the existence within a department (or group of communicating departments) of a highly diversified set of courses which might be combined in different ways to serve distinctively different educational or career goals. To implement the model, the faculty first identifies all of the different educational and/or career goals which the program might serve. It then specifies the particular knowledge and skills needed to realize each goal. This set of knowledge and skill requirements for a given goal (or closely-related set of goals) then rigorously directs the selection of courses from the available pool to constitute a curricular option. A department which formerly offered one degree program with diverse and diffuse goals now will offer several different curricular options, each with its own specific goals and structure.

It is important to emphasize that it is the career goals, not the extent curriculum nor definition of the field or discipline which determines the course content of each curricular option. Thus if a career goal demands a given skill which is not available in the department, but is available elsewhere in the university, the "outside" course is defined into the curricular option - after due consultation with faculty in the impacted department to assure adequate course capacity and student compatibility. By the same token, if a career goal demands knowledge within the discipline which calls for modification of an existing course or creation of a new one, the course development is carried out - provided that the marginal costs are not too high, as we note below.

The essence of the curricular option approach is to provide the student with a wide range of different educational and career goals from which to choose within the broad field of study. In fact, initial faculty and administrative reaction to the proliferating list of career goals is that no single program possibly could provide such diversity without a vast expansion of faculty and fiscal resources. This reaction is not merely probable, it is virtually inevitable, because of the perfectly natural tendency to perceive curriculum in terms of either the pigeonhole or the wheel model. First reactions will be based on the assumption that either a separate department and faculty must be created to serve each career or educational goal (pigeonhole model) or that a very large department must be created with a division corresponding to each goal (wheel model).

The curricular option model provides the answer to these objections in those fields of study to which it can be applied. In such fields, the natural overlap of required knowledge and skills from one educational goal or career goal to another is cumulatively very large. There probably will be no single course that is found to be essential to every curricular option, yet there probably will be for each option at most a small handful of courses which serve that goal alone. Consequently the curricular options will overlap one another at different points and in varying degree, interlocking in a multidimensional curricular space.

One can easily reduce this abstraction to concrete reality by imagining a two-dimensional matrix or table. Across the top of the table are listed the curricular options, each option assigned to a column of the matrix. Down the side of the table are listed all the courses offered in the entire curriculum, each course assigned a row of the matrix. Now, if a given course is required for a particular option, put an "X" in the box within the table where the column for the option crosses the row for the course. If the course is one of several from which the student in a particular option must choose, put a fraction in the appropriate box or cell; for example, if the course is one in a list of five from which the student must choose two, enter the fraction 2/5 in the cell. This course-by-option matrix reveals the individual courses where each curricular option overlaps each of the others and provides a ready means of calculating degree of overlap between any two options.

In a sense, when a given discipline at a particular university adopts a curricular option approach to organizing its programs, the course-by-option matrix constitutes an operational definition of the field of study at that university. But, since it neither fully subdivides nor completely delimits the field, what kind of definition can it possibly be? The answer can be found in Wittgenstein's theory of definitions. He examines in depth several terms such as "game" and "number", concluding that there exist perfectly valid and useful concepts which identify a class of things whose members have no one thing in common and cannot be unambiguously subdivided into a finite set of subclasses.

> "And the result of this examination is: we see a complicated network of similarities overlapping and criss-crossing: sometimes overall similarities, sometimes similarities of detail. . .as in spinning a thread we twist fibre on fibre. And the strength of the thread does not reside in the fact that some one fibre runs through its whole length, but in the overlapping of many fibres."[1]

In those academic disciplines whose areas of specialization display "a complicated network of similarities overlapping and criss-crossing" and whose content does not contain any one fibre that "runs through its whole length", the curricular option approach may well represent the natural form of organization. In such a case, the organization of the discipline in the university may correspond to its organization in the world.

It will be apparent, however, that the curricular option approach calls for a more sophisticated approach to scheduling and distribution of faculty talents than is ordinarily required. Since most courses will play a role in two or more curricular options, each must be scheduled so as to fit into the proper sequence of not just one program but several. The key to this problem lies in determining how many sections of each course must be offered during the course of a year. This in turn, depends on maximum section size, coupled with the total anticipated annual enrollment in the course.

To find anticipated annual enrollment one must estimate the number of students who will enter each curricular option each year. If all programs are likely to be oversubscribed (as would be the case currently in Business) one simply needs to set a cap on the number of students accepted into each option; this maximum then becomes the anticipated enrollment. If something less than full capacity is anticipated, some realistic mechanism must be used to estimate the number of students entering each option during the year. In the case of a master's degree curricular option requiring one year to complete, this number of entering students equals the number of enrollments required by that option in each of its required courses. In the case of any course that is one of several from which the student must choose, the number of anticipated enrollments from that option will be a fraction of the number of entering students.

If we now return to the course-by-option matrix we see that it can be used to calculate the number of anticipated enrollments in each course across the entire curriculum. If an option with anticipated enrollment of 25 students requires Course A, then we find an "X" opposite Course A under that option. If another option with anticipated enrollment of 20 students lists Course A as one course in a group of four from which the student must choose one, then we might anticipate that 1/4 of the students in this second option will enroll for that

course, creating an additional demand for five enrollments. Suppose that we sum across all of the curricular options for which the course is required or partially-required and find an anticipated demand for 40 enrollments. If the maximum section size is 25, then we know that this course must be offered twice during the year and probably will have several vacant seats available for "service" enrollments from other departments or for majors who take the course on an elective basis.

The course-by-option matrix can also be used to calculate the marginal cost of each curricular option, defined as the cost of adding this option if all other options were already in place. Suppose that we concentrate for the moment on just one element of marginal cost, faculty effort. As we examine the matrix we may discover that some courses are required or partially-required for only one curricular option. The cost of staffing that course then becomes a marginal cost of that option. Similarly, if an additional section of a course must be offered to serve the needs of students in a particular option, the cost of that section is a marginal cost of the option. If we convert each course and section to an appropriate percentage of annual FTE faculty effort, and sum those figures for a curricular option, we have calculated the marginal cost in faculty FTE for offering that option.

Marginal cost calculations can lead to surprising results. If a program stands alone, so that students can take courses in that program and no other, its marginal costs soar. On the other hand, in a program that lends itself to organization by curricular options, the marginal costs of each option tend to be very low. In our case, the most costly of our options came to less than 1.0 FTE faculty, and the cost of adding certain new options actually proved to be zero. The latter occurs when all the courses required by the new option are already being taught for various other options with a number of unfilled seats available in the scheduled sections adequate to cover the anticipated annual enrollees in the new option.

The marginal cost figures also provide a handy means for evaluating the cost-effectiveness of each curricular option, for the larger the marginal cost, the greater should be our expectation of productivity. Of course, productivity may be measured in a number of dimensions, but usually a curricular option with a very high marginal cost should be expected to graduate a relatively large number of students annually. If not, then it should demonstrate some striking advantage, such as great public service, high national visibility or unusual potential for generating external funds. When the ratio of marginal costs to productivity becomes unacceptably high one must contemplate a redistribution of faculty resources.

One of the first barriers to considering a curricular option approach is the problem of governance. Logic dictates that each curricular option should be controlled by those faculty who identify with it and teach a significant number of courses in it; yet sound administrative procedure requires that resource decisions be made at the departmental, school or college level. It is not at first obvious how both needs can be served. This conflict is exacerbated by a second factor, the ease with which a new curricular option can be developed, raising the spectre of new centers of power and new demands for resources. It is not initially clear how these can be dealt with in a framework of limited resources. Most significant of all, the move to curricular options will inevitably revise the existing departmental consensus and elicit subtle realignments in the existing power structure. Many will feel that they have more to lose than they could gain through the adoption of curricular options.

Assuming a minimum level of good faith on the part of both faculty and administration, these governance issues are easily (though not necessarily quickly) resolved, but it does require departure from some time-honored practices. To begin with, the department-as-a-whole must surrender its absolute control over the smaller details of curricular planning, leaving these to the individual curricular option committees, retaining budgetary control and perhaps very broad veto powers at the departmental level. Since many faculty will chair a curricular option committee and most will serve on several of them, the actual governance situation will be similar to interlocking corporate directorates. This guarantees communication between related options, provides each individual faculty member a broad range of influence, and prevents egregious opportunism on the part of any option, while leaving each curricular option committee free to exercise its best judgment regarding development and implementation of its program.

The governance mechanism should provide a straightforward and systematic procedure for bringing a new curricular option committee into existence, so that the program can respond timely to changing priorities and emerging concerns. This also serves to offset fears of those faculty who feel they have much to lose through reorganization. It quickly becomes apparent that their share of the compromise under the old alignment can be exchanged for a more rewarding assignment and identification under the new. Since the curricular option approach is not carried out within the confines of a zero-sum game, everyone can gain simultaneously, and in terms that are uniquely and individually satisfying.

For those disciplines which lend themselves to organization by curricular option, it provides a number of distinct advantages. (1) It maximizes utilization of resources within the program. (2) It allows a relatively small faculty to provide a diversified program. (3) It provides clearcut guidelines for interfacing with other programs of utilizing university-wide resources (4) It allows a program to determine with a high degree of specificity just what educational goals it will support. (5) It permits the student to select a detailed program based on individual career goals and thus simplifies advisement. (6) It provides a realistic basis for faculty assignments and course sequencing. (7) It sets up a simple means of modifying or augmenting the program as often as desired without massive reorganizations. (8) It provides for a new type of governance which places most program controls at the "grassroots" level while retaining necessary budgetary control centrally.

FOOTNOTES

[1] Ludwig Wittgenstein, Philosophical Investigations in Morton White, The Age of Analysis. New York: Mentor Books, 1955.

BREAKING THE CATCH 22 CYCLE: IMPROVING HEALTH CARE OF THE BLACK AND DISADVANTAGED

BY

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FOR

CONFERENCE ON ASSESSMENT OF
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I. The Need

How can health care delivery be improved? This question is a fundamental one to all personnel involved in the delivery system including persons responsible for delivering services and persons responsible for providing the manpower to the system. Although the principle that health care is a right is freely articulared, the silent reality is that health care is more often a function of geographical residence and ethnic origins.[1] Geographical distribution of health care personnel has been and is being addressed with some success through a number of federal programs, including the Area Health Education Centers and the National Service Core. However, the health care status of disadvantaged populations, particularly black continues to be a problem as evidenced by morbidity and mortality rates in both rural and urban settings.[2]

Nontraditional methods of delivery of health care have made some impace. A cursory analysis indicates that a major deficit in the system is the result of a lack of health professionals who are minorities and willing to practice in underserved areas. Where are these practitioners going to be educated? In the early seventies a concerted national effort was established to increase the number of black health professionals, particularly physicians and dentists.[3] This effort did produce results as evidenced by the number of enrollees and graduates in schools of medicine and dentistry. Unfortunately, this effort has been curtailed and admission figures are beginning and expected in the coming decade to return to those of the sixties.[4] A side effect of the Carter policy toward health manpower education (Budget, 1980) is expected to be a further reduction in black admissions to programs designed to produce health professionals.

For a number of historical reasons, medicine and dentistry(followed closely by nursing) receive the most attention when the words "health professionals"

are used. However, the health professions include more than 200 occupational titles ranging from the aide level to Ph.D.'s working in clinical laboratories.[5] The term, Allied Health, is often used to identify the array of persons who require registration, licensure, or certification to practice including such disciplines as medical technology, physical and occupational therapy, clinical dietetics, dental hygiene, respiratory therapy, and radiologic technology. These professions although accounting for 20 to 25 times the number of physicians and dentists, are often overlooked as a key component of any health care delivery system.

If health care for blacks and disadvantaged is going to improve, it will take allied health professionals from those backgrounds in order to provide services.[6] However, there is a "Catch 22 Cycle" in the system of manpower training for the following reasons:

(1) Curricula in the allied health professions are highly competitive, precluding students who either have not taken an academic program in high school and/or students who have not been successful in negotiating the preprofessional curriculum (natural and basic medical science courses);

(2) Allied health curricula have been designed to meet the learning needs and styles of academically superior and socio-economically advantaged students;

(3) Minority students have few encounters with black health professionals in the system and therefore, have few role models. Thus, few black students apply, fewer are accepted, and still fewer graduate. This cycle (precluding entry of black students into the professions is reinforce. Where can the cycle be broken; how can the cycle be broken?

Since faculty in educational programs retain the decision making authority for entry, retention, curriculum design and evaluation in the educational system, the point of faculty preparation requires change. In other words, the cycle *will not* be broken until there are sufficient numbers of qualified black health professionals to join faculties of educational programs. Recruitment, retention, role modeling, and curriculum design depend upon faculty who are sensitive and intellectually resourceful in this dilemma. The College of Allied Health Sciences of Howard University is an ideal setting in which to address this dilemma and break the cycle.

II. THE MISSION:

Every graduate program which has been developed has been conceived in some philosophical womb. One theme which characteristically is found in such philosophical statements is some reference aspiring to achieving a standard of excellence.[7] The piety of these references can usually be reduced to their lowest common denominator, i.e., rhetoric.

According to *John R. Haire* who recently addressed the annual meeting of the Association of American Colleges, "excellence is not a vague, arbitrary, pie-in-the-sky illusion. It can and does have meaning when it references our achievement of some goal which we have the guts to state."[8]

Howard University is likewise "committed to excellence in the pursuit of its basic aims and purposes. Among the University's aims is (1) "to help develop solutions to human and social problems, particularly those of the under-served poor and Black communities." and (2) "to provide educational opportunities for students who may not otherwise acquire an education of the type offered at the University."[9]

These two aims can have special significance for breaking the cycle described in section one. First, while the judicial and legal processes within our country have since 1954 struck down the denial of freedom of access to institutions of higher education on purely racial grounds, the *de facto* reality is that limits have been imposed on Blacks and other disadvantaged persons

based on conditions of economic and educational deprivation.[10] Second, recognition of the aforementioned realities in higher education strongly argues for a closer examination of the issues (and a subsequent raising of questions) which are being addressed at this conference including:

(1) Standards of quality

Can higher education make significant impact on the social and human problems, e.g., health care for the poor, without a greater degree of their involvement in the educational and delivery processes? In other words, can we have X's in the output without having X's in our inputs and throughputs?

(2) The Value and Future of Master's

Can Master's programs provide the catalyst for establishing a new consensus, including persons from economically and educationally deprived circumstances, that will target and state up front the goal of improving the health care of the disadvantaged?

(3) The Design of Master's

Can we design Master's Programs that reflect in philosophy, content, process and outcome a constituency and target goals of this new consensus?

The remainder of this paper shall address these issues and questions by highlighting the curriculum design of the Master's Program in Allied Health at Howard University.

III. THE PROGRAM:

Graduate education programs arise from commitment to a set of principles. These principles are the interface between the content of a body of knowledge and the application of that body of knowledge. In other words, principles are derived from an integration of theoretical principles and pragmatic applications. In some disciplines the emphasis is largely on theory, while others emphasize the practical applications of theoretical concepts. In the health professions, the dramatic rise in the utilization and sophistication of health care places a demand on graduate programs to respond to the needs, both theoretical and pragmatic, of a changing system. The mission statement of the College of Allied Health Sciences addresses this issue:

> Curriculum development will be directed toward shaping offerings to match the economic, political and socio-cultural facts of contemporary experience in order to make certain the changing modes of thought and expression, as well as the changing values that accompany them, serve as the matrix for instruction in the fundamental disciplines which underpin the educational structure of the allied health professions.

For the proposed masters program in the Allied Health Sciences, the application of this mission statement translates into a number of basic assumptions about the design of the program. Although these assumptions range from the general to the specific, they are characterized by interdependence; they are of equal importance.

1. *The overall goal of graduate education is to add both depth and breadth to the student's academic preparation and life experience.* Students pursuing this graduate program will utilize the basic level of education and experience of their specialty area as a stepstone not only to greater depth of theoretical and applied skills of their discipline, but a broader view of the health care context to which their specialty relates.[10]

2. *The knowledge and skill base of the speciality areas are those which are defined and controlled via a variety of mechanisms.* Undergraduate education in the allied health disciplines is characterized by homogeneity in curriculum design. While each program may espouse a unique philosophy, effecting such matters as student target group and pedagogical methods, the subject matter content is designed by professional conceneus. The knowledge and skill base is defined both through the program accreditation process invilving the professions in collaboration with the appropriate agencies controlling program accreditation and through a mechanism of practitioner certification and registration by the professional associations.[11]

3. *Graduate level education in the allied health professions is characterized by variety in curriculum design.* In graduate education for the allied health professions, no single curriculum has proven satisfactory to meet the needs for the variety of career roles that the graduate level allied health professional may assume. In fact, diversity within and across professions is the "norm" for graduate level education for the allied health professions in contrast to the more homogeneous programs at the undergraduate level.[12]

4. *The dynamic growth of the allied health professions has resulted in a continuing redefinition of the functions in the various specialty areas.*[13] As health care has become more specialized, the functions in the allied health professionals have become more precisely defined with greater autonomy and independence. Allied health graduate education will continue to become more refined as the body of knowledge and the application of that knowledge in practice becomes more defined. This program will create agents of change to provide infusion of knowledge into the process of the ongoing definition.

5. *There is a need for persons educated through the graduate level in specific discipline areas in particular and in health care in general.* The increased demand for health care and the subsequent increase in use of allied health personnel has created a manpower shortage in both allied health practice and allied health education. Existing health graduate programs have helped to relieve the manpower shortage in some regions of the country and in some of the well-established disciplines. Yet demand continues to surpass supply. Programs should respond to individual student needs while at the same time maintaining academic standards of excellence. An undergraduate allied health student generally has a foundation in the basic sciences together with discipline related theory and skill development. These are then applied in a variety of supervised

clinical settings in order to prepare competent practitioners. Thus, allied health students entering the graduate program represent a population that understands both theory and its application in practice. Since the application of theory through work experience varies among and across disciplines, each graduate must have a program developed on individual experience. These individual work experiences may have broadened their professional competency disparately. Therefore, each student will require upon admissions to the graduate program individualized academic processing.

6. Traditionally black institutions have been the most succesful in preparing black professionals.[14] Existing allied health graduate programs have recruited minority students, including black students. However, the enrollment of graduate minority students has not kept pace with the graduate market demand nor with the enrollment potential created by the undergraduate pool. Cost, geographical location, and limited minority role models are casual factors impacting on the enrollment of graduate minority students.

B. Program Characteristics:

The allied health sciences have been characterized by a period of rapid growth and expansion of personnel and programs. The ensuing period of growth will likely be noted for (1) qualitative improvement of existing educational programs; (2) expanding leadership roles for allied health practitioners in the health care setting; and (3) increasing basic and applied research activities. The faculty and staff of the College of Allied Health Sciences believe that a graduate program can provide the personnel required to respond to these directions. The following five characteristics delineate the educational concepts for the master's program in the allied health sciences:

1. Multi-disciplinary in Scope

As health care becomes more complex, it becomes more specialized; and health practitioners will work in settings increasingly characterized by interdependence of numerous disciplines. Therefore, the efficacy of the health care system will depend upon the ability of the specialists to function in a unified manner. Knowledge of the interdependent relations of all the personnel in health care is the first step in developing a concept of the health care team. That particular concept can best be nurtured in a multi-disciplinary setting. Cooperation of disciplines must be modeled in both the academic and clinical education settings if collaboration is to be implemented in service areas. The graduate program will provide students an opportunity to focus, identify, explore, and respond to the issues and the practices of the variety of allied health professions in relationship to the health care system.

2. Economic in Use of Resources

Budget restrictions and continuing limitations on resources makes it increasingly important that developing programs not duplicate useful existing courses or programs. Resources in the university community need to be constantly examined to ensure the fiscally sound practice of sharing existing resources. However, this sharing of resources should not compromise the quality of any new or existing educational program. Stretching a thin resource would compromise quality. Tapping of existing resources must be done in the context of examining what resources are available and what constraints are upon them. Concomitant with the utilization of present resources is the requirement to augment (where appropriate) those resources and to develop new ones. Therefore, the graduate program will necessarily extend across college lines; the program will be both multi-disciplinary within the allied health professions, and intercollege within Howard University.

3. Professional Concentration Area

The third premise of the program is that students will select a concentration of courses in the advanced basic and/or allied sciences directly related to their respective undergraduate degree. This premise has been both fostered by the hiring practices of institutions and supported by professional associations in the allied health disciplines. The trend toward upgrading professional entry requirements makes it imperative that allied health professionals continue to expand their knowledge in their chosen discipline through graduate study and research. Whether the graduate of a master's degree program is going to teach baccalaureate level students or supervise baccalaureate level graduates, there is a necessity for a broader base and a deeper understanding of discipline-related content than that possessed by the holder of the baccalaureate degree.

4. Allied Health Concentration Area

The goals of the entering students will vary according to one of five patterns: (1) preparation for advanced clinical practice; (2) preparation for teaching; (3) preparation for amangement and supervision; (4) preparation for further graduate work or research in the discipline; and (5) preparation for international program development. Therefore, the graduate program will be responsive to individual needs consistent with good curriculum design. Each student will develop personalized program objectives related to pursuit of educational growth and be able to select one of the five patterns as a allied health concentration area.

5. Require Professional Experience for Admission

The fifth and final premise is the commitment to admit only qualified and experienced allied health professionals. The prerequisites for admission are a baccalaureate degree in an allied health profession with appropriate registration, licensure, or certification. Additionally, each student will be required to have a minimum of two years of clinical or equivalent experience.

CONCLUSION:

John W. Gardner, in Excellence, a book of the sixties relevant for the seventies and most likely the eighties, says that "human societies have severly and successfully limited the realization of individual promise." We do not submit that the master's program for allied health professions at Howard University will undo past history nor dramatically change the future for the whole of the health care delivery system. We do believe that it will help individuals realize their promise. The philosophy of the program has its roots in the College Mission, one of changing values and redefining the standards of quality and the meaning of academic quality. These value changes and redefinitions in the system begin, not end, with people as patients for as we deal on a day-to day basis with students who are also allied health professionals, how we function in their world says dearly what we believe about ours.

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The Value of Graduate Programs: The MSMT Model

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The academic arena of higher education in which we find ourselves today, with regard especially to graduate, professional education, there prevails pressures dictated by professional societies, organizations and governmental bodies coupled with technical advances in the pure and applied sciences. These developments have produced an array or responses involving, at least in part, proliferation of masters degree programs. A current very popular mode of delivery has been external degree programs. These programs typically are directed toward the new learner: the adult population.

External degree programs, being offered at site locations away from the main campus, present many unique problems of concern to the educator and consumer alike. The quality of these programs as it relates to students, curriculum, faculty, library and audio visual facilities, in general, program viability, all must be given special attention. The following Process and Outcome Objectives as part of the Master of Science in Medical Technology External Degree Program at California State University Dominguez Hills, address the issue of an evaluation mechanism used to determine quality in these areas.

PROCESS OBJECTIVE 1

The recruitment of qualified applicants to the MSMT Program will be undertaken through communication channels appropriate to the profession of medical technology.

DATA:

1. A listing of professional publications and the corresponding date in which the announcement appeared.
2. A description of mailing lists employed and the date of the mailing.

CRITERIA:

This objective will be considered as met if

1. Announcements of the MSMT program appear in such publications as:
   a. Journal of American Medical Technologists
   b. Lab World
   c. California Association for Medical Laboratory Technologists Newsletter
   d. American Association of Bioanalysts Bulletin

RESPONSIBILITY:

It will be the responsibility of the Director MSMT Program, to prepare and submit appropriate press information designed for the specific publications listed above and to send brochures to those on such mailing lists. Records of announcements, mailings, and publicity shall be submitted to the Evaluator.

PROCESS OBJECTIVE 2

Applicants admitted to the MSMT program will be in possession of a California license as a California Laboratory Technologist or be a registered Medical Technologist with the American Society of Clinical Pathologists, have professional experience beyond the initial trainee period, and have a bachelors degree or equivalent.

DATA:

1. Application forms which will verify either California licensing or registration with the American Society of Clinical Pathologists.
2. Application forms which will include at least one letter of recommendation from a current supervisor or a previous employer verifying that the applicant has professional experience beyond the initial trainee period.
3. Official college transcripts of previous college or university work.

CRITERIA:

1. This objective will be considered as met if all admitted applicants
   a. are licensed or registered medical technologists,
   b. have professional experience beyond the initial trainee period, and
   c. have a bachelor's degree or meet the equivalent requirements of Executive Order 166.

RESPONSIBILITY:

It will be the responsibility of the Program Director to evaluate all applicants with respect to the established criterion and to certify that all admitted students meet the established criteria.

PROCESS OBJECTIVE 5

All students advanced to full candidacy for the MSMT degree shall have a minimum grade point average of 3.00 and shall have completed at least 24 quarter units of approved course work.

DATA:

1. Applications filed by students for advancement to full candidacy.
2. Grade point averages of students advanced to full candidacy.
3. List of approved courses completed by each student advanced to candidacy.

CRITERIA:

This objective will be considered as met if all students advanced to full candidacy have a minimum grade point average of 3.00 and have completed at least 24 quarter units of approved course work.

RESPONSIBILITY:

It is the responsibility of the Office of Admissions and Records to compile grade point averages and lists of courses completed at the end of each quarter for all admitted students. These will be transmitted to the Evaluator and the Director. The Director will notify students qualified for application for full candidacy to fill applications and will provide application forms. It is the responsibility of the Evaluator to review records for compliance with criteria.

PROCESS OBJECTIVE 12

All part-time and off-campus faculty who teach in the MSMT program will meet the regular campus criteria to insure the academic quality of the program.

DATA:

1. List of part-time and off-campus faculty indicating teaching assignment.
2. Certification by at least two of the following that part-time and off-campus faculty meet the regular campus criteria for the hiring of instructors.
   a. Director of the MSMT Program
   b. Dean of the appropriate School
   c. appropriate department chairperson

CRITERIA:

This objective will be considered as met if the required certification is on file attesting to the comparability of the two types of faculty.

RESPONSIBILITY:

It is the responsibility of the Director, MSMT Program, the Deans of the participating schools, and department chairpersons to select faculty members through existing channels, in accordance with on-campus standards. It is the Director's responsibility to designate permanent faculty members on class schedules.

PROCESS OBJECTIVE 13

Library facilities will be made available to all students in the MSMT program through the use of both on and off-campus resources.

PROCESS OBJECTIVE 13 continued...

DATA:

1. Letters of agreement from off-campus libraries allowing access to students in the MSMT program.
2. Student questionnaires relating to the availability of library resources.

CRITERIA:

This objective will be considered as met if at least one contractual agreement exists with an off-campus library allowing access to the facilities by MSMT students and if the majority (over 75%) of these students indicate on the questionnaire that outside library facilities are available to them.

RESPONSIBILITY:

It is the responsibility of the Director, MSMT program, to establish all arrangements and agreements to assure the continued availability of resources outside the CSUDH library. It is the responsibility of the Evaluator to check whether or not students have access to off-campus libraries.

PROCESS OBJECTIVE 15

An annual report will be prepared and submitted to the Commission on External Degree Programs at the end of each academic year.

DATA:

A comprehensive written report describing and evaluating the year's activities and progress with respect to the stated process and outcome objectives.

PROCESS OBJECTIVE 15 continued...

CRITERIA:

This objective will be considered as met if an annual report is published and submitted to the Commission on External Degree Programs.

RESPONSIBILITY:

The Dean of Community Programs and Extended Education, the Director, MSMT program, Administrative Coordinator, MSMT program, and the Evaluator will share the responsibility of report preparation.

PROCESS OBJECTIVE 16

The MSMT Program will be reviewed annually in order to remain consistent with advances in the field.

DATA:

1. Minutes of the annual meeting of the MSMT Advisory Board.
2. Objectives for each course in the MSMT Program.
3. Course outlines for each course in the MSMT Program.

CRITERIA:

This objective will be considered as met if the MSMT Program is subjected to an annual review and revised as necessary to be consistent with developments in medical technology as recommended by the MSMT Advisory Board.

RESPONSIBILITY:

It is the responsibility of the core faculty and the Director, MSMT Program, to monitor journals of the medical technology field and to hold a review session once a year to consider curriculum revision. It is

PROCESS OBJECTIVE 16 continued...

the responsibility of the Director to call an annual meeting of the MSMT Advisory Board. It is the responsibility of the course instructors to revise the course outlines and objectives in keeping with MSMT Advisory Board recommendations. It is the responsibility of the Evaluator to review course outlines and objectives for changes in keeping with the recommendations of the MSMT Advisory Board.

OUTCOME OBJECTIVE 1

Students will demonstrate knowledge of quality control procedures in the laboratory by:

A. Defining criteria for selection of reagents and equipment for a designated section of the clinical laboratory,

B. Defining relevant terms,

C. Listing steps used in maintaining daily and monthly quality control programs, and

D. Simulating a monthly quality control program from factual data.

DATA:

1. Behavioral objectives for MDT 404, Quality Assurance in the Clinical Laboratory.
2. List of students meeting parts A through D as provided and certified by the instructor.

CRITERIA:

This objective will be considered as met if the behavioral objectives for MDT 404 are on file and the course instructor verifies that:

1. Eighty-five percent of the enrolled students listed de-

OUTCOME OBJECTIVE 1 continued...

fined 95% of the criteria specified in Part A.

2. Eighty-five percent of the enrolled students defined 95% of the terms specified in Part B.
3. Eighty-five percent of the enrolled students left out no more than one step as specified in Part C, and
4. One hundred percent of the enrolled students adequately simulated the required program as specified in Part D.

RESPONSIBILITY:

It is the responsibility of the Director, MSMT Program, to transmit the required course objectives and instructor verification to the Evaluator.

OUTCOME OBJECTIVE 5

Students electing the Clinical Laboratory Management Option will demonstrate knowledge of computerized methods, medical personnel management, and advanced application of health care delivery.

DATA:

1. Behavioral objectives for MDT 410, Health Care Delivery II, MDT 412, Medical Personnel Management, MDT 414, Advanced Data Collection and Control Technology, and MDT 416, Budgeting for Health Care Institutions.
2. Student scores on criterion referenced examinations.

CRITERIA:

This objective will be considered as met if the behavioral objectives for MDT 410, MDT 412, MDT 414, and MDT 416 are on file, and the course instructors verify that 85% of the

OUTCOME OBJECTIVE 5 continued...

enrolled students met 85% of the course objectives as defined by the criterion referenced examinations.

RESPONSIBILITY:

It is the responsibility of the Director, MSMT Program, to transmit the required course objectives and student scores on the criterion referenced examinations to the Evaluator.

OUTCOME OBJECTIVE 11

The program will provide upward mobility for graduates holding the MSMT degree.

DATA:

Follow-up questionnaires mailed to all graduates two years after the granting of the degree to determine past and current job title and salary.

CRITERIA:

This objective will be considered as met, if, during the two years following graduation, at least 25% of the graduates experience a promotion and are granted at least a 25% increase in salary.

RESPONSIBILITY:

It is the responsibility of the Evaluator to design the questionnaire and to compile data from the returned questionnaires. It is the responsibility of the Director, MSMT Program, to distribute the questionnaires to the graduates and to monitor their return.

AN EVALUATION OF THE NATIONAL EVALUATIONS OF GRADUATE PROGRAMS

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Beginning with the Hughes study in 1925, a number of national studies of the quality of graduate study have been made, with the most recent one by Ladd and Lipset and reported in the January 15, 1979 issue of *The Chronicle of Higher Education*. The American Council on Education (ACE) has taken an active role in rating *graduate* programs in major universities, beginning with the Hughes study. The most detailed ACE study, by Allan Cartter in 1966, assessed quality of non-professional graduate study in major universities. Five years later, another ACE-sponsored study by Roose and Anderson (1970) replicated the Cartter study of major graduate programs in non-professional areas. The Cartter study received usable answers from an opinion survey of 900 department chairmen, 1,700 outstanding senior scholars and scientists, and 1,400 younger academicians. In all, 30 disciplines at 106 major institutions were surveyed on (1) the quality of the graduate faculty, (2) the effectiveness of the doctoral program, and (3) the degree of expected change in the relative position of departments offering doctoral study in the discipline of the rater.

The Roose and Anderson study was essentially a replication of the Cartter study, with slight enlargement--seven additional disciplines and twenty-five additional institutions. It did depart from the Cartter study in taking a much lower profile in reporting the data: "In updating the ratings of graduate programs, we [Roose and Anderson] have had serious misgivings about the apparent endorsement a study of this kind gives to the primacy of a...hierarchy of university prestige and influence. For this reason, we have sought to play down the actual scores and adjectival descriptions of faculty and program quality, preferring instead to emphasize the importance of identifying faculties and programs with scores at or above the 2.0' floor set five years ago." (p. 24). It is likely that the national student unrest at the time plus student and faculty agitation for more emphasis on undergraduate teaching were instrumental in this decision.

Three other studies are related to the 1966 Cartter work: Margulies and Blau (1973), Blau and Margulies (1974-1975), and Cartter (1977). The first report by Margulies and Blau used the criterion "that has been found to be most reliable," which was the judgment of experts in the field--in this case, deans. This report asked 1,180 deans of seventeen different subject areas in *professional* schools to name the five most outstanding schools in their profession but not to rank them. (The earlier Cartter and the Roose and Anderson studies did not include professional areas.)

As one would expect, the first Margulies and Blau study was discussed widely; and the second study one year later (Blau and Margulies this time) dealt with criticism of the first report:

> One group of critics categorically oppose ranking schools. Such rankings, they think, engender invidious comparisons and hurt many good schools that may not be at the very top in their field, particularly in a period when it is difficult to obtain much-needed financial resources. But this view sees the results of such rankings only from the standpoint of schools and their administrators and not from the perspective of their publics, especially prospective students and employees, who have a stake in knowing how schools compare in quality and reputation. A second criticism of our work was that it did not furnish information on the quality of professional schools, since the rankings were based on the judgment of deans and not on objective measures of quality. As one critic put it, 'These are just the opinions of a bunch of deans.' A third major criticism of our study was that the rankings of at least some types of schools were based on very few responses, those of only a small proportion of all deans in a field. This criticism is well founded." (p. 42).

The replicated study by Blau and Margulics co-related closely with the one that they had finished a year earlier: "The correlation in the new and the old study between reputation ratings for *all* schools, not only in the top five, in all types of professions is .94....If separate correlations for each type between the new and the old reputation ratings are computed, thirteen of seventeen are larger than .90 and none is lower than .75." (p. 43). While these correlations span only one year, Clark has compared ratings over time, beginning with the 1925 Hughes study, and found "university reputations are exceedingly stable. All of the top twenty universities in the earlier surveys are still at the top, and relatively few new ones have been added." (p. 89).

The 1977 Cartter study on education, law, and business started with different referents--faculty members, and since the universe was fifty-one Ph.D. granting institutions the professors could be expected to be research-oriented. The results of the Cartter study, with Blau-Margulies rankings, are given on the next page.

Correlations between the Blau-Margulies and Cartter studies are quite high for the first five or six places although some striking differences do exist. These differences may be due primarily to the different ways in which the data were collected or in the clienteles sampled. Cartter supports his thesis in this manner: "Whose judgment does one trust: 146 deans asked to name only 5 schools, or 453 professors and deans drawn from all 51 doctoral-granting institutions? The most knowledgeable teachers/scholars in the field, in our view, are much more in tune with the quality of scholarship and education in other institutions than are scholarship and education in other institutions than are a few faculty stars and deans who may be more familiar with the administration." (pp. 42-53) Blau and Margulies (1974-1975) would disagree: "The central position of deans and their responsibility for recruitment should make them particularly well informed about the quality of the schools in their field. To be sure, the resulting ratings of school reputations are merely the opinions of these experts, but all professional reputations are no more than the opinions of fellow experts." (p. 42). It is interesting to note that Cartter's 1966 study used statistical procedures to determine the differences in ratings among department chairman, senior scholars, and junior scholars. He found that "...there is little to distinguish the ratings of the chairmen or of the junior scholars from those of the senior scholars." (p. 7).

The influence of sheer size has been mentioned as a criticism; namely, bigger is viewed as better. (Wispé reached this conclusion in studying the size of psychology departments used by Cartter.) Those institutions and departments with the largest numbers of graduates do tend to be the top-rated institutions, leading to the generalization that ratings likely do favor larger units since they produce more graduates who in turn retain some nostalgia for "those days in graduate school." Also, the larger units are more visible in the professional literature, in writing and consulting, at conventions, and in numbers of graduates, therefore visibility

TOP SCHOOLS OF EDUCATION

Faculty Quality

1.	Stanford University	1.59
2.	University of Chicago	1.93
3.	Harvard University	2.06
4.	Teachers College Columbia University	2.13
5.	University of California Los Angeles	2.15
6.	University of Wisconsin	2.15
7.	University of California Berkeley	2.15
8.	Ohio State University	2.21
9.	University of Illinois	2.26
10.	University of Michigan	2.37
11.	University of Minnesota	2.36

Educational Attractiveness

1.	Stanford University	1.46
2.	Harvard University	1.77
3.	University of California Los Angeles	1.80
4.	University of California Berkeley	1.87
5.	University of Wisconsin	1.91
6.	University of Michigan	1.95
7.	University of Chicago	1.95
8.	University of Illinois	2.03
9.	Ohio State University	2.06
10.	University of Minnesota	2.07
11.	Michigan State University	2.09
12.	University of Texas, Austin	2.13
12.	Teachers College, Columbia University	2.13

Combined Scores

	Combined Scores		Blau Margulies Rankings
1.	Stanford University	3.07	1
2.	Harvard University	3.83	5
3.	University of Chicago	3.87	4
4.	University of California Los Angeles	3.94	12
5.	University of California Berkley	4.04	--
6.	University of Wisconsin	4.05	7
7.	Teachers College, Columbia University	4.27	2
8.	Ohio State University	4.28	3
8.	University of Michigan	4.28	6
8.	University of Illinois	4.28	8
11.	University of Minnesota	4.46	10
12.	Michigan State University	4.60	11
13.	University of Texas Austin	4.70	--
14.	University of Indiana Bloomington	--	9

TOP LAW SCHOOLS

	Faculty Quality			Educational Attractiveness			Combined Scores		Blau-Margulies Rankings
1.	Harvard University	1.05	1.	Yale University	1.19	1.	Harvard University	2.30	1
2.	Yale University	1.18	2.	Stanford University	1.23	2.	Yale University	2.37	2
3.	Stanford University	1.45	3.	Harvard University	1.25	3.	Stanford University	2.68	6
3.	University of Michigan	1.45	4.	University of Michigan	1.35	4.	University of Michigan	2.81	3
5.	University of Chicago	1.46	5.	University of California Berkeley	1.42	5.	University of Chicago	2.88	5
6.	Columbia University	1.58	6.	University of Chicago	1.44	6.	University of California Berkeley	3.16	7
7.	University of California Berkeley	1.74	7.	University of Pennsylvania	1.64	7.	Columbia University	3.28	4
8.	University of Pennsylvania	1.99	8.	Columbia University	1.68	8.	University of Pennsylvania	3.63	9
9.	University of Virginia	2.17	9.	University of Virginia	1.72	9.	University of Virginia	3.66	-
10.	University of Texas Austin	2.30	10.	University of California Los Angeles	1.88	10.	University of California Los Angeles	4.19	-
11.	University of California Los Angeles	2.32	11.	Cornell University	1.90	11.	Cornell University	4.29	-
12.	Cornell University	2.38	12.	Duke University	1.97	12.	University of Texas	4.31	-
13.	New York University	2.39	13.	University of Texas Austin	2.01	13.	Duke University	4.46	-
14.	Northwestern University	2.42	14.	Northwestern University	2.06	14.	Northwestern University	4.50	-
15.	Duke University	2.50	15.	University of Minnesota	2.08	15.	New York University	4.58	8

TOP SCHOOLS OF BUSINESS

	Faculty Quality	
1.	Stanford University	1.33
2.	University of Chicago	1.50
3.	Massachusetts Institute of Technology	1.64
4.	Harvard University	1.73
5.	Carnegie-Mellon University	1.97
6.	University of California Berkeley	2.06
7.	University of Pennsylvania	2.12
8.	University of California Los Angeles	2.26
9.	Northwestern University	2.40
10.	Columbia University	2.51

	Educational Attractiveness	
1.	Stanford University	1.24
2.	Harvard University	1.37
3.	Massachusetts Institute of Technology	1.50
4.	University of Chicago	1.73
5.	Carnegie-Mellon University	1.88
6.	University of Pennsylvania	1.69
6.	University of California Los Angeles	1.89
9.	University of California Berkeley	1.95
9.	Northwestern University	1.96
10.	Cornell University	2.07
11.	University of Washington	2.23
11.	University of Michigan	2.23
13.	Columbia University	2.24
14.	University of North Carolina, Chapel Hill	2.25

	Combined Scores		Blau-Margulies Rankings
1.	Stanford University	2.57	2
2.	Harvard University	3.09	1
3.	Massachusetts Institute of Technology	3.14	6
4.	University of Chicago	3.32	3
5.	Carnegie-Mellon Univ.	3.85	5
6.	University of California Berkeley	3.99	7
7.	University of Pennsylvania	4.02	4
8.	University of California Los Angeles	4.14	5
9.	Northwestern University	4.39	11
10.	Cornell University	4.59	-
11.	Columbia University	4.75	10

can become equated with perceived quality. Of course the larger departments may be better by virtue of the advantages of diversity, specialization and collegiality among students and professors.

McGee speaks to the quality issue in terms of size and type of institution: "If we make an analogy to sports, the place of the liberal arts college is, in general, in the bush league and little league, although some of the best known and most prestigious (such as Swarthmore or Antioch) might be considered sufficiently important in American higher education to be accorded minor league standing by faculty raters. No colleges could ever be considered major league. Lacking graduate and professional faculties and students, their influence on higher education is simply too limited." (pp. 154-155).

The debate on "to compare or not to compare" goes on. The academic community generally opposes comparative ratings, for two reasons: only a few can be anointed (rated very highly) yet those in academe know that outstanding invididuals and units dwell elsewhere as well. And the technical procedures for making the ratings are quite elemental and no one can be sure about how much credulence to place in the ratings. One study by Bess, stimulated by the two ACE studies in 1964 and 1969, compared academic departments using a greater number of quality indices than was the case for the ACE study. The results indicated that the only significant difference between the high and low departments was in ego satisfaction. These findings caused the researcher to view "with considerable caution" the findings of the ACE studies. (721-727).

Parents, legislators, and other public officials generally favor ratings, and such ratings are consistent with current emphases on consumerism. The use of comparative quality ratings will continue to evoke curiosity, outrage, or support but in any case a healthy degree of skepticism might well accompany whatever position one takes.

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HOW TO ASSESS QUALITY IN MASTER'S PROGRAMS -- A NEW AND BETTER WAY

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The best-known studies of the quality of graduate programs virtually all rate the quality of Ph.D. programs; these studies have severe shortcomings, even as ratings of doctoral programs, and when techniques are developed for rating master's degree programs, they will need to be very different from the methods widely used now. Let's look, briefly, at three currently used techniques of assessing the quality of graduate programs.

1. One method, proposed by anthropologist Beverley Hurlbert (4), uses exchange theory in rating anthropology departments. When departments hire each other's Ph.D.'s, she assumes that they are equal in status, but if, for example, the University of Florida hires several of Howard's Ph.D.'s, and Harvard does not reciprocate, she concludes that Harvard is higher in status; thus, by examining recent hiring patterns among universities, she rank orders anthropology departments. This method has serious flaws, including the following:

a. it can measure only the strength of departments relative to each other, not the quality of each department.

b, it assumes that university hiring practices are entirely meritocratic.

c. it measures a department's strength by only those graduates who receive appointments in Ph.D.-granting institutions. An economics department, for example, that produced 20 Ph.D.'s, of who two became assistant professors of economics at Ph.D.-granting universities and 18 became hoboes, would be rated higher than a department that turned out 20 Ph.D.s, all of who were hired for responsible jobs by major corporations and government agencies.

d. it rates departments solely by the first jobs of their graduates, and thus attributes too much importance to the quality of a program's students. Many studies by Alexander W. Astin (see, for example, 1) and others have shown that the academic achievement of college seniors is much more influenced by the ability of the students when they entered than by the institution's "quality," and if this finding holds true for graduate education, and if the best students get the best jobs, then the "exchange" method really measures the quality of a program's students more than the quality of the program.

2. Another method of rating the quality of graduate programs has been employed by Jack Gourman (3), and while Hurlbert's technique rates programs largely on one factor -- the quality of their students -- Gourman goes to the opposite extreme and considers a great number of things. In his "Method of Evaluation" section he says he has evaluated each institution's "auspices, contwol and organization," its "total education programs offered," its "number of non-departmental areas," age, admissions requirements, student enrollment, teaching staff, physical facilities, finances, curriculum and research.

But Gourman gives scarcely a clue to how he measured all these things, scarcely a clue to how important he considered each of them (how, for example, do you weight a school's "teaching staff" against its "age," and does a school gain or lose points because it is old? Also, when Gourman assesses a college's "auspices, control and organization," what types of auspices and organization *improve* one's rating, and what types *hurt* it? Gourman is silent on these and many other methodological matters.

At any rate, Gourman attempts no ratings of graduate schools by field, except for law, medicine, and dentistry. One normally enters a graduate program to study a particular subject -- even if one's program is interdisciplinary, it is still normally based on a few related fields -- and Gourman's global ratings of universities tell little, except for the fields of law, medicine, and dentistry, about any particular field of study.

3. But in a sense we have been setting up straw men so far, for the two rating methods we have discussed have been used, so far as we know, by only a single author. By far the most widely used means of evaluating graduate programs has been to assess the research reputation of their faculty by asking others in their discipline -- department chairmen, senior scholars, junior scholars, or some combination -- to rate them. This technique has been used, in one form or another, in the two best-known ratings, those of Allan Cartter (2) and Roose and Andersen (6), and also in the study by Ladd and Lipset (5), whose preliminary findings were summarized in the *Chronicle of Higher Education* a few weeks ago.

These "reputation of faculty" studies have been the best-designed and most influential of the existing quality studies, but they measure, for the most part, only the quality of a department's

faculty and neglect most other aspects of it. Cartter, for his part, did include, at the end of his study, a section in which he rated a university's library resources and the number of its graduate students who had won national fellowships, but he made no attempt to integrate these measures with his ratings of faculty to form one, overall measure of departmental quality. And CArtter and Roose-Andersen both tried to rate not only the quality of a department's faculty but the overall effectiveness of the program, yet the two scores correlate so nearly perfectly -- for the 36 disciplines studied by Roose-Andersen the correlations were all either .98 or .99, usually .99 -- that what was being measured was clearly the same thing.

What, then, is to be done? To measure the quality of a school's graduate program in any discipline we must measure not only the reputation of its faculty, as most of the ratings do, not just the ability of its students, as Hurlbert's study does, and certainly not the entire institution, as Gourman says he does[1] -- but the department itself, Ancillary departments whose offerings could reasonably be expected to attract a substantial number of students from the department being rated, campus facilities used by the department, and the advantages and disadvantages of the surrounding community for the subject being studied.

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[1] For example, the research potential of Harvard University's forest, located in central Massachusetts, probably does not vitally affect its students studying Comparative Literature in Cambridge, and the fact that New York University, according to the Roose-Andersen survey, had the best art history department in the country, might have been more relevant to philosophy students wishing to specialize in aesthetics than to aspiring electrical engineers.

What follows is an outline of a rating system according to the principles we have described. We will classify our measures into those dealing with the department being rated, those involved with things outside the department but on the campus, and those concerned with the community surrounding the campus.

1. Departmental Measures

a. the faculty's scholarship -- the research abilities of the faculty, rated -- as in many existing assessments -- by other scholars in the same discipline.

b. amount of time faculty devote to teaching, advising, guiding student research, and student contact in general -- in many highly rated departments the most visible people, the ones upon whom the department's reputation is largely based, do less teaching and advising, and have less contact with students, than less well-known people. Thus a program's reputation for teaching effectiveness may be based, paradoxically, upon the reputations of those who do the least teaching. Therefore, in rating programs we should consider not only their professors' research productivity but the contribution they make towards teaching and advising students, and a professor who is often on leave and teaches a light schedule when he is in residence should not "count" as much, in measuring a program's teaching effectiveness, as one who does a full share of teaching and advising.

c. quality of students -- this would be measured by GRE aptitude and achievement scores, undergraduate grades weighted by quality of college attended, and -- in the case of some professional

Master's programs -- students' current jobs and cumulative experience in their field.

d. student participation in department and campus life -- these could be measured both by the percentage of full-time students, of students who served as teaching or research assistants, and of students who lived on or very near campus, and also by the absolute number of students in a department who were fully involved in department and campus life. All things being equal, programs with a high percentage of such fully involved students would be rated higher than others; however, having a "critical mass" of students for others to interact with is important, too, and a graduate program with, say, 100 students, 40 of who were full-timers, would be rated higher than a program with 10 students, four of who were full-timers.

e. placement record of graduates -- here I would consider not only initial academic appointments, as Hulbert does, but how well the program served to advance all its students' careers. In the case of a Master's program, for example, I would consider the percentage of its graduates who went on for doctorates, the percentage of those who actually completed their doctorates, the quality of the Ph.D-granting institution they went to, and also the kinds of jobs the terminal Master's students got, their starting salaries, and -- for those who were employed before beginning their program -- their salaries and responsibilities, immediately after earning their Master's, compared to what these were just before they entered the program.

2. Campus-wide Measures

a. strength of related departments -- in rating a Master's program in Special Education, for example, I would consider the quality of the campus' psychology department, especially the number and quality of the course offerings and the quality of those faculty most valuable to a student studying Special Education, and also the accessibility of these psychology courses and faculty to Special Education students.

b. quality of campus facilities a program draws upon -- instead of using global measures, as does Gourman, and assigning a rating to an entire institution, I would attempt, for each program, to rate those campus academic facilities it uses most. In the case of a Master's program in English, for example, I would rate the central university library and the English or humanities library, if any, but not the computer network; for a program in art, the campus' studios, equipment, and museum collections, if any; for a program in sociology, both the campus' library and its computer network. Though we cannot predict with certainty, of course, what campus resources a program's students will use -- there will always be students in Special Education who have little or no contact with the campus' psychology department, and some students in English who wish to do computer-assisted studies -- selecting the campus facilities students in a given program are likely to use most and measuring the quality of those is at least a step in the right direction.

3. Surrounding Community

Finally, we should consider, in assessing any program's quality, the campus' wider environs, and we should rate both the community's intellectual ambience in general and what it offers for the particular field being studied. For example, Harvard and UC Berkeley might well earn a higher rating for their neighborhoods, with their many bookstores and cultural opportunities, than schools less favorably situated.

Turning to ratings of the campus' environment in terms of a particular field, we would argue that New York City is a good environment to study most periods of the history of western art, Washington, D.C. is a good place to study many aspects of American government, and schools very near an ocean -- for example, the University of Miami in Coral Gables and UC San Diego -- are good places to study marine biology. Programs located in such environments would be rated higher, all things being equal, than similar programs less favorably situated.

In suggesting that a great many factors be considered in rating graduate programs, I am aware that I have suggested rating some things -- for example, the quality of a campus' surrounding community -- that are extremely hard to measure. And I know that so far as campus environments are concerned, as with many other things, one scholar's Paradise is another's Purgatory, and that some people, particularly in the late 1960s, found the Berkeley environment I have just touted an exceptionally unpleasant place to be.

Furthermore, though I have praised certain types of environments as ideal settings for certain disciplines, it is clear that the finest departments in the country are by no means always, or even often, in the settings that would seem to be the most hospitable. For example, according to the 1970 Roose-Andersen ratings, the finest Spanish department in the country was not anywhere in the Sunbelt but rather at Harvard, and the third and fourth best Spanish departments were in decidedly un-Hispanic Madison, Wisconsin and Philadelphia. Similarly, the best German department in the country was not in Milwaukee but at Berkeley, and the fourth best philosophy department was in Pittsburgh, a town that has reminded few people of Socrates' Athens.

On the other hand, though our nation's capital would seem to be a good place to study American government, of the nation's 54 best political science departments, again according to Roose-Andersen, not one was located in Washington. In short, we must be careful not to weigh a program's environs too much. How much, though, is *enough?* How much importance should we assign to each of our different measures? If we are rating the campus' surroundings, the school's library, and the quality of, say, the history faculty, should we weight each of these equally, and, if not, how should we assign weights? These are serious problems, to which these are no simple solutions. Still and all, by rating graduate programs on a large number of factors, and by weighting these factors appropriately -- difficult as this may be -- we will come much closer to measuring the true quality of graduate programs than we do with the one-dimensional measure -- the measure of the faculty's research reputation -- that is commonly used today.

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UTILIZING MULTIPLE DIMENSIONS OF QUALITY IN JUDGMENTS OF MASTER'S DEGREE PROGRAMS

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Educational researchers are increasingly concerned about matters of quality in graduate education. Doctoral programs have been the primary focus of this concern, but interest is now turning to the master's degree. Research and rhetoric concerned with quality has tended to begin from the perspective of what "ought" to constitute quality in the minds of scholars or graduate school deans. Studies have not investigated what "does" constitute quality in the judgment behavior of those most concerned with graduate programs, i.e. academic administrators, faculty and students. This paper reports on a study conducted at the University of Northern Colorado that attempted to identify the appropriate dimensions of quality for evaluation of local master's programs, and to assess the relative importance of those dimensions in the actual judgment process.

The literature reveals a variety of research approaches to the subject of quality. The earliest and best known studies focused on "program excellence" (Weiss, 1970), and provide prestige and reputational ratings of programs (Hughes, 1934; Keniston, 1959; Cartter, 1960; Roose and Anderson, 1970). These studies, and others derived from them (Knudsen and Vaughan, 1969; Elton and Rose, 1972; Beyer and Snipper, 1974; Morgan and Kearney, 1976; Lynd, 1976), have resulted in the identification of a host of characteristics, indices and dimensions associated with program quality. The work of Blackburn and Lingenfelter (1973) represents the first effort to categorize and organize these various techniques into a single model or conceptualization for evaluating and comparing degree programs.

More recently, the work of Clark, Hartnett and Baird (1976) has attempted to identify, from a broad range of program characteristics, those most important to judgments of quality in doctoral education. Furthermore, they sought to develop multidimensional procedures for judging quality incorporating a greater variety of indicators and measures.

The multiple dimensions approach suggested by Clark, et al., (1976), represents a comprehensive model with possible application to all levels and forms of graduate education. The literature does not, however, reveal any specific attempts to apply such a model to the evaluation of master's programs. Nor have previous studies addressed a number of other considerations. While research suggests a number of program dimensions associated with quality, little guidance is provided in terms of the relative importance of such dimensions (Clark, Hartnett and Baird, 1976, p.4). The underlying assumption would appear to be that the presence of quality dimensions at high levels does, in fact, constitute quality. Actual judgments of quality, however, may depend on the relative importance assigned to given dimensions as well as the extent to which dimensions are expressed. The interdependence of quality dimensions in the judgment process should also be considered (Lynd, 1976). Finally, much of the research and literature suggests various uses for quality information about graduate programs, but none examine the utility issue empirically (Cartter, 1966; Roose and Anderson, 1970; Breneman, 1975; Clark, Hartnett and Baird, 1976; Lynd, 1976; Entman and Paletz, 1976). Understanding how qualitative information presented in a multiple dimensions format is actually utilized in the judgment process could shed light on broader questions of usefulness of such information.

The most obvious way to identify the important elements of quality is to simply ask academic administrators, faculty, students or others what they value in degree programs. Essentially, this has been the approach of previous researchers in spite of what may be a serious limitation of this method. While subjects may be able to identify the ingredients or dimensions of quality they consider important, they may have difficulty specifying the relative importance or interrelationship of such dimensions in actual judgment situations. Lichtenstein and Slovic (1973) point to a variety of human judgment studies in which subjects have difficulty specifying the dimensions they use in making their judgments.

The foregoing summary of related literature suggests the following: 1) the multiple dimensions approach has not been applied to the assessment of master's programs; 2) research efforts have not empirically addressed matters of relative importance, interdependence, and utility of quality dimensions; and 3) the direct inquiry approach may have some inherent limitations when attempting to study judgment behavior in the context of program quality considerations. This study has attempted to deal with each of these concerns. The first step was to identify appropriate measures for assessing quality of master's programs using the model suggested by Clark, et al., (1976). Secondly, subjects associated with master's programs as administrators, faculty or students were asked to make judgments about programs based on information presented in multiple dimension profiles. In this way, subject preferences for certain dimensions could be examined without relying on the direct inquiry method.

Lens model procedures, derived from the theoretical and methodological formulations of Egon Brunswik (1952, 1956), were adapted to this study. Quantitative indices were obtained by measuring the relationship between the values or levels of dimensions in the profile description of a program, and the subjects' judgment of that program. These relationships were analyzed for

four (4) subject groups including academic administrators, faculty, external and resident degree master's students. It was, therefore, possible to assess both the relative importance of different dimensions and the extent to which groups of subjects differ in their use of dimensions.

METHOD

The purpose of this study was: 1) to identify and operationally define quality dimensions appropriate to the assessment of master's degree programs at the University of Northern Colorado (UNC), and 2) to assess the relative importance of dimensions in the judgment policies of individuals and groups. Judgment task materials were developed which characterized hypothetical degree programs in a bar graph format. The lens model was used as the paradigm for presenting the programs to be observed and judged by the subjects which included academic administrators, faculty and two groups of master's students.

Subjects

Subjects consisted of four (4) groups with fifteen (15) in each group. Student subjects were randomly selected from a list of those making application for graduation while enrolled during the spring term of 1978. One group included only those completing degree programs on campus. The other student group included only those completing master's programs off campus through external degree offerings. Faculty and administrators were selected on the basis of their responsibility for the evaluation and review of graduate programs. Faculty subjects were selected at random from the University Faculty Senate and Graduate Council. Administrators were selected from a compiled list of professional staff with more than half-time academic administrative responsibility. Mean age, educational and sex differences were inevitable and no attempt was made to control these variables.

Data Collection Instrument

The instrument used in this study consisted of a set of instructions followed by 35 judgment tasks. Task materials were comprised of hypothetical program profiles using seven general quality dimensions suggested by Clark, et al., (1976). Dimensions were operationally defined using two to four specific measures. A jury of experts, comprised of key academic administrators, chairpersons of the Faculty Senate and Graduate Council, and a graduate student assisted in the identification and selection of measures to define each dimension.

The quality dimensions, as displayed using bar graph profiles for each of 35 programs, served as cues consistent with the lens model. The cues varied along dimensions suggesting different levels of quality. In this way, cues served as potential mediators of the quality level attained by the program.

A separate response sheet was used to record subject judgments. On the response sheet were 35 separate criterian scales ranging from 1 to 9; with 9 representing the highest attainable level of program quality. Each of the program profiles were numbered to correspond with each of the criterian scales. The subjects' task was to observe the cue values of a single program profile, and to rate the program accordingly on the corresponding criterian scale. Cue values and criterian scales shared the same 9 point range including 3 locations defined as "Among the Lowest", 3 locations defined as "About Average", and 3 locations defined as "Among the Highest". Subject judgments were based, therefore, on comparative estimates of program quality.

Procedure

Each subject was tested individually over 35 judgment tasks. In each of the 35 program profiles, cue levels were set with the following considerations in mind: 1) ten (10) profiles were prearranged to test for averaging and consistency tendencies; 2) ten (10) profiles were prearranged to test for specific influences of environment and academic offering dimensions; and 3) fifteen (15) profiles were prearranged on a random basis. The order of presentation of profiles varied randomly for each subject within each of the groups to avoid effects of fatigue. On the facing page of each profile, a summary of the dimensions and measures used to describe them was provided for subject review.

RESULTS

To analyze the subjects use of the seven (7) quality dimensions as cues, individual product moment correlation coefficients (Pearson "r") were computed on the criteria scales for each of the 35 programs. These correlation coefficients measure the degree to which each of the dimensions vary systematically with subject ratings of programs (Beal, Gillis and Stewart, 1978). Cue utilization coefficients were then converted to *z* values using Fisher's *r* to *z* transformation (Ferguson, 1966). Subsequent analyses of variance were performed on these normalized *z* values.

The mean utilization coefficients for each of the four groups were subjected to a 4 x 7 (groups by dimensions) repeated measurements analyses of variance. A significant main effect was obtained only for differences between dimensions. No main effect was evident in comparing groups or interaction between groups and dimensions. The main effect for dimensions ($F(6) = 71.675$, $p < .01$) indicate that quality dimensions were used differentially in judging programs. The absence of other main effects indicate that no significant differences appeared between groups in their utilization patterns.

Dimension Utilization Patterns for All Groups

The patterns of dimension utilization for all four groups of subjects show considerable similarities. Quality of faculty, resources, alumni and overall program were the most highly utilized dimensions for all groups. Dimensions concerned with quality of students, environment and academic offerings were utilized least.

Using Tukey's HSD procedure for multiple comparisons (Kirk, 1968), all groups utilized the dimension concerned with quality of faculty significantly more ($p < .01$) than all other dimensions except alumni. Quality of alumni was used significantly more than quality of students, environment and offerings. Overall program quality and quality of resources were also used significantly more than quality of students, environment and offerings. Quality of students was used significantly more than quality of environment.

Identification of Natural Groups

There being no significant difference between assigned groups, a judgment analysis procedure was performed in an effort to identify any natural clusters or groups that might share common utilization patterns (Christal, 1968). Only two distinct groups emerged from this procedure.

The first group of fifteen (15) subjects was composed predominately of students with 27% external, 47% resident, 13% faculty and 13% administrators. Their utilization pattern varied distinctly from that of all other subjects. The average for all mean utilization coefficients for group one was substantially lower than the remaining subjects, and much less variation in utilization coefficients were observed.

The remaining forty-five (45) subjects comprised the second group. Much larger, group two was also more evenly represented by students (42%), faculty (27%) and administrators (29%). Group two represents all remaining subjects and conforms to the utilization patterns observed with all assigned groups. Much greater variation in mean utilization coefficients were observed for group two.

CONCLUSIONS

This study attempted to apply a mutli-dimensional approach to quality assessment of master's degree programs. Furthermore, the lens model was employed to evaluate the relative importance of dimensions in actual judgment situations.

The seven (7) quality dimensions and program profile format suggested by Clark, et al., (1976) adapted well to the assessment of master's programs in the context of UNC. The author experienced no difficulty in working with a jury of experts to identify and select appropriate measures. And, subjects interviewed in the course of the study responded favorably to the approach. Based upon this experience, it appears that the multi-dimensional approach does hold promise in the application to quality assessment of master's programs.

The most interesting findings from this study may be found in the analysis of dimension utilization results. Utilization patterns across all assigned groups of students, faculty and administrators were highly similar. The importance of a quality faculty and quality resources were paramount in judgments of program quality. As an output measure, all groups emphasized the importance of quality alumni. And, as might have been expected, the pervasive measures ascribed to overall program quality assumed a significant role in judgments of programs. Quality of environment did not contribute importantly to the judgments of any assigned groups. In summary, graduate students (resident and external), faculty and administrators appear to generally depend upon the same dimensions of quality in rendering their judgments, i.e. a quality faculty, adequate resources, a successful alumni and overall program reputation. They rely much less on information concerning the quality of entering students, or the extent to which the environment and program meet the expectations of faculty and students.

These results are not particularly surprising. Most evaluative efforts concerned with quality assessment of graduate programs have weighted heavily the "external" characteristics that are both obvious and easily measured. What is of some surprise, however, is the degree of apparent similarity that emerged when comparing the utilization patterns of assigned groups. It was expected that assigned groups, by virtue of their different vantage points would judge quality in equally different ways. It was in questioning these results that the judgment analysis procedure was particularly useful. A distinct "natural" group did emerge. Predominately students, this group leaned toward a more balanced use of all seven (7) quality dimensions relying much less on only those that pertain largely to external characteristics.

Certainly the results of this study are only tentative and limited to the confines of locality and design. They do, however, suggest that a multiple dimensions approach can be fitted to the assessment of master's programs. And, assuming such an approach is employed, this study sheds light on the question of actual utility of information thus presented in judgment situations by using the lens model. Finally, by adding judgment analysis to the analysis of variance procedure, this study points up the advantages of being able to look more closely at similarities and differences among subjects in such judgment experiments. Perhaps, through this rather unique research design, new information can be made available that leads to a better understanding of what "ought" to and what "does" constitute quality in master's degree programs.

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ASSESSING QUALITY IN GRADUATE EDUCATION

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A MULTIVARIATE APPROACH

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> Quality. . . you know what it is, yet you don't know what it is. But that's self-contradictory. But some things ARE better than others, that is, they have more quality. But when you try to say what the quality is, apart from the things that have it, it all goes POOF! There's nothing to talk about. But if you can't say what Quality is, how do you know what it is, or how do you know that it even exists? If no one knows what it is, then for all practical purposes it doesn't exist at all. But for all practical purposes it really DOES exist. What else are the grades based on? Why else would people pay fortunes for some things and throw others in the trash pile? Obviously some things are better than others. . . but what's the BETTERNESS?. . . So round and round you go, spinning mental wheels and nowhere finding any place to get traction. What the hell is Quality? What IS it?
>
> from Zen and the Art of Motorcycle Maintenance

Can qualitative difference be distinguished using quantitive techniques? And if so, do we know enough about what quality is to measure it? The answers to these questions are not clear. Pirsig in Zen and the Art of Motorcylce Maintenance presents the dilemma so well--"you know what it is, yet you don't know what it is. . . ." But even if our efforts prove futile and the concept of quality continues to elude measurement, we have no choice but to try and capture the essence of what quality is. Without understanding quality we will not be able to understand and improve the educational process. And without some measure of how well we do our job, prospective students will lack the kind of information they should have in chosing where and how they will commit their efforts.

In this paper I examine the appropriateness and usefulness of previous efforts to assess quality through reputational ratings and multivariate analysis. Building upon previous research and theory, I propose an alternative multivariate approach for exploring the latent structure that underlies quality--an education production function model that identifies a set of characteristics of graduate education that are related to quality, and examines how these characteristics interact with each other and how they can be used as a whole to measure the quality of graduate education.

Three conditions are important for developing useful techniques to assess quality in graduate education, particularly at the Master's Degree level.

- Using data that are reliable and readily available.
- Creating measures that distinguish between levels of quality along the entire continuum of programs from those of very high quality to those of unacceptable quality.
- And most importantly, devising assessment techniques that distinguish between inputs into the quality function and outcomes or products of the educational process.

Using data that are reliable and readily available. If we are to measure quality, the effort should be as inexpensive as possible. Though the demand for accountability is high and should foster efforts to assess quality, budgets are tight and few additional resources will be available for new initiatives. Furthermore, there are many within academe that are skeptical or openly hostile to the exercise of quantifiably measuring quality; therefore, to enhance the probability of success, efforts to assess quality should be as inobtrusive as possible. But in addition to these pragmatic reasons for relying on readily available data, preferably data in the public domain, there are empirically sound reasons as well. Data that are commonly collected from all programs in a discipline allow easier and more reliable comparisons of programs. Furthermore, in assessing the quality of graduate education it is useful, for taking stock of present circumstances and for planning for the future, to understand how the quality of various programs has changed over time and, perhaps more importantly, whether the determinants of quality themselves are in flux. Publicly availably data make it possible to examine these trends rather than trying to reconstruct data from spurious sources.

Creating measures that distinguish between levels of quality along the entire continuum of programs from those of very high quality to those of unacceptable *quality*. It is interesting to know who is on top, and important as well, but it is equally important to know about the relative quality of programs of less renown stature. Much public and institutional policy regarding graduate education focuses on programs of lesser or moderate quality, and not on programs of higher quality that have established their credibility. From a policy perspective, therefore, it is imperative that measures of quality be able to distinguish reliably between programs of varying quality, and to do so in a way that indicates why program quality differs.

Devising techniques used to assess quality that distinguish between inputs into the quality function and outcomes or products of the educational process. Examining the outcomes of the educational process provides a measure of how well the process is working. While this is a critical component in measuring quality, it is not, by itself, a sufficient measure of quality. It does not indicate the extent to which various components going into the educational process contribute to the outcome(s), and thus does not help in assessing how quality can be improved. Including inputs into the quality function and distinguishing them from outcomes provides insight into what factors are key in improving quality and how these various factors interact.

HOW WELL DO PAST ASSESSMENTS OF QUALITY IN GRADUATE EDUCATION ADHERE TO THE THREE CONDITIONS?

Ratings of Graduate Programs: Reputational ratings of graduate programs have provided the dominant approach for evaluating quality in graduate education. Though ratings are not available in the public domain, they can be compiled at relatively little expense and are reasonably reliable, at least with respect to programs of high prestige and visibility. But reputational ratings are less useful in distinguishing between programs of moderate and lower quality, particularly at the Master's Degree level, where academic peers are less likely to have sufficient familiarity to judge adequately the full array of programs. There are

a host of other reservations with using ratings as a sole measure of quality. It is unclear, for example, whether prestige is equivalent to quality, as well as the extent to which ratings of quality result from the halo of the parent institution or how much lag time there is between changes in program quality and reputational ratings.

The major drawback of ratings, however, is that they provide no direct clues about how to improve quality. By relying on this subjective assessment, it is unclear what input factors are contributing to higher levels of quality and it is unclear what outcomes are associated with higher quality.

Multivariate Analysis: Most of the past multivariate techniques for assessing quality have either compared simple (bivariate) correlations of many variables or they have used multiple regression to estimate the relationship between a group of variables and ratings of quality. These studies vary considerably in quality, beauty, and usefulness. Some rely on easily attainable data, others don't. In general, these multivariate analyses are able to distinguish between programs of quite divergent quality. Virtually none of the previous assessment techniques, however, have distinguished between inputs into the educational process and outcomes of the process. Rather, they have concentrated primarily on finding a group of factors that could be used to substitute for ratings, with little theoretical base for the selection of variables. In many cases the regression analyses have failed to examine the interrelatedness of the independent variables.

AN ALTERNATIVE MULTIVARIATE APPROACH TO ASSESSING QUALITY

Theoretical Underpinnings of the Model. The approach that I present for assessing quality, follows logically from previous efforts that introduced the possibilities of multivariate analysis. It draws heavily from the theory of hedonic quality measurement developed for use in the field of economics and a theory of prestige rating functions developed for use in sociology. These analogous theories provide a framework for using quantitative measurement technique to assess what is basically a non-quantifiable entity, quality. The hedonic (or characteristics) theory postulates that quality can be envisioned as the "variation in quantity of the different elements into which the product may be decomposed (its characteristics)" (Griliches, 1971). "Thus, the level of a particular variety of a product is established by the amounts of the various characteristics it contains." (Triplett, 1971). The theory of occupational prestige, developed principally by Duncan, adopts a similar approach, disaggregating occupations into their component characteristics from which a prestige function is derived. It goes further, however, suggesting a temporal ordering of the characteristics; thus distinguishing between these characteristics which precede temporally the creation of an occupation and those which evolve from the occupation (outcomes of the process). More recently, Kolstad has expanded this predictive theory into a causal model which is useful not only in rating various occupations, but also in being able to predict the extent to which specific characteristics contribute to an occupation's prestige.

Description of the Model. I have combined the hedonic approach with an approach that distinguishes between inputs, which are transformed by the production process, and outputs, which represent the final product (see Table I). As inputs into the quality function, I propose a set of nine characteristics, or elements, of which graduate education is composed. This set of inputs represents a parsimonious collection of resources and aspects of the educational process that are perceived to contribute to achieving the goals of education. An effort was made not to omit any variables that might be critical determinants of quality. Previous studies, particularly the 1975 CGS/ETS study, were used to determine which variables were most critical. Four output measures were selected as proxies for the level of quality achieved by programs in pursuit of various educational goals. Multiple regression was used to estimate the relationship of the set of inputs to each of the output measures and to estimate the relationship of both inputs and outputs with subjective ratings of quality.

Results. These results are from testing the model in one field of study, economics. The specific results are not generalizable to graduate study in other disciplines, nor to graduate education below the doctoral level. I include the results, however, to show the potential usefulness of this hedonic educational production function approach to assessing quality.

Though perceived program quality appears to be the best single index for assessing quality, the results show that examining a number of dimensions of quality provides a much broader understanding of program quality than does any one measure (see Table II). Reputational ratings are related quite highly to two of the four concrete output measures used as proxies for quality in this study (scholarly productivity and degree productivity), but they are unrelated to two proxies measuring other dimensions of quality (equity and career preparation and placement).

The set of input characteristics is related to reputational ratings and to two proxies for quality; scholarly productivity, and career preparation and placement. The set of input characteristics is unrelated, however, to two of the desired outcomes of the process; equity and degree productivity.

Individually the input characteristics contribute differentially to each of the proxies, though some particularly strong trends are evident:

- o institutional prestige is important to all measures of quality,
- o faculty ability and competence (a single characteristic) is highly related to perceptions of quality, but not highly related to concrete measures of output,
- o two characteristics, institutional size and research activity, contribute very little in a positive way to assessing quality within the function I propose.

But in addition to these findings, an analysis of simple correlations shows that the three characteristics contributing the most to the various quality functions (institutional prestige, faculty competence and ability, and student ability) also are highly interrelated. Thus, it is difficult to estimate the unique contribution of each of these characteristics to the various relationships.

How well does the model adhere to the three conditions established for assessing quality?

Quantifiable measures were selected to represent each of the characteristics outlined in Table I. Almost all of the data were available in the public domain, though comparable financial data on individual programs proved virtually impossible to get. By relying on public, quantifiable data, the reliability of the measures was enhanced. In one situation, teaching ability, no adequate measure existed for the desired characteristic so a more subjective assessment of faculty competence and ability was used instead. In measuring the adequacy of facilities, opinions of faculty were used because previous research suggested opinions were a valid measure for this characteristic.

As with other multivariate approaches the hedonic-educational production function distinguishes programs all along the continuum, from those of high quality to those of low quality. The principal advantage of this technique for assessing quality is that it not only provides an assessment of quality, but it provides some clues about how specific characteristics are functionally related to quality. For example, in the field of economics, it appears that increasing the strength of the faculty might well improve the reputation of a program and enhance its scholarly productivity, but it would be unlikely to increase the program quality in other dimensions such as enhancing equality of educational opportunity or helping students complete their academic programs.

SUMMARY

The characteristics approach provides a promising technique for assessing quality in graduate education--a more useful approach than any single index, particularly in Master's level education where a lack of uniform knowledge about various programs makes rating programs untenable. The educational production approach provides a technique for assessing quality that relies on readily available data, allows comparison of the entire continuum of programs from those of highest quality to those of lowest, and provides valuable information on how specific input characteristics contribute to enhancing various dimensions of quality. There are limitations, however to this approach. First, the set of inputs and outputs needs refinement, with the particular need to incorporate some critical determinants of quality. Second, the interrelatedness of many of the input characteristics limits the usefulness of the approach in suggesting the unique contributions of specific input characteristic to the quality function.

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PROTECTING THE CONSUMER: THE ROLE OF THE CONSULTANT

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INTRODUCTION

For many institutions of higher learning, survival depends upon their ability and/or willingness to offer programs which meet current demands of our society. Various fields of study become important at a given time because of emerging societal issues, and one may cite such areas of interest as aging, death and dying, energy, communications, transportation and urban studies. There are obvious bona fide reasons for developing and offering programs which meet these societal needs. However, the "bottom line" mentality should not be the one of institutional survival, but rather the one of offering a quality product which will serve the student well. Ideally, the perfect program is one which provides quality education and sustains the institution financially.

Fundamentally, that which will sustain our educational institutions is their academic quality as well as the entrepreneurial approach they take in marketing their programs. While some few colleges/universities possess such reputations that their very names serve as a magnet for attracting students, most lack this charism and must depend upon other means to enroll students.

In most cases, if marketed correctly, a well designed, quality program should be self supporting. An esoteric field of study, or one which is not oriented towards career preparation, regardless of its quality, may not be able to finance itself because of insufficient enrollment. Excellence will not always guarantee survival.

Moreover, graduate education today finds itself confronted with several serious concerns: (a) a decline in the graduate student body has begun (confirmed by the Council of Graduate Schools, December, 1978); (b) retrenchment and reallocation programs have commenced on almost every campus in the country; and (c) some few graduate programs have already been eliminated while others face an uncertain future. Frankly, there is no question but that graduate education has entered a transitional period. Consequently, as competition for resources and students intensifies, institutions must, if they have not already done so, take steps to insure themselves and their current and future students of the quality of their academic programs.

The basic thesis of this paper stipulates that consultants can aid both institutions and their students in assessing the quality of their academic programs.

CONCERN FOR THE STUDENT

What must be of special concern to all institutions is the consumer, the student who enrolls in a graduate program expecting not only to be well educated but also to do something with the Master's degree. (Very few students are enrolling for the sole reason of love of learning.) It is generally recognized that there is an unevenness in the quality of graduate programs on a campus; and, while a definite change has begun to emerge, once established, it is still the infrequent Master's degree program which a college/university dismantles. Hence, the overriding concern in all graduate program evaluation must be: what is it that gives the student assurance that the Master's program in which one enrolls is one of substance and quality?

FOUNDATIONS FOR THE MASTER'S PROGRAM

Ideally, institutions of higher learning plan Master's level programs predicated on certain fundamental principles: the mission of the institution, the quality of faculty and other instructional resources, students with high potential, financial resources and the need factor. However, it is almost impossible for an institution to consider each of these factors from an unbiased perspective; thus, it is essential that an impartial expert assess the ability of the institution to mount a quality Master's degree program.

THE CONSULTANT

To help an institution determine the strengths and weaknesses of a proposed Master's program, colleges/universities ask independent, respected experts to review the proposed program. Many State coordinating agencies insist that, before State approval is granted, consultants will not only review but also make a definite recommendation concerning the substance (quality and all that that embraces) and the need for such a program. Quality minded institutions, with the help of external consultants, in a cyclical fashion, review Master's programs which are already in place. These evaluations of proposed and existing programs help protect the consumer, the student who enrolls believing that a bona fide program awaits him/her.

THE SELECTION AND ROLE OF THE CONSULTANT

Before establishing the manner in which the consultant can assist the consumer, I should like to address the issue of selecting the "expert." The consultant must possess recognized credentials and be perceived as a person with at least a regional, if not national, reputation. Not only should the consultant be an expert in the appropriate field of study, but the person should also be neutral, objective and sophisticated enough so that he/she really understands the full implications of an on-site visit. The expert knowledge of a field of study does not necessarily mean a person has the professional capability of functioning as a consultant; the

consultant must understand the basic underpinnings of an academic program so that a review may wed the theoretical with the practical. The consultant must understand the dynamics of a program from its inception to the end product. In addition, among other criteria, the consultant should be familiar with similar other existing programs, be aware of employment possibilities, be knowledgeable of budgeting and financial matters, and have no past or professional relationship with the institution under review. Both the institution and State coordinating agency should agree that an individual is acceptable as a consultant. At a later date, this can obviate numerous problems.

If taken seriously both by the institution and the State coordinating agency, the consultant plays a crucial, even pivotal, role in determining the strengths and weaknesses of a proposed program. The consultant can be helpful to the State coordinating agency (as is the case in New Jersey) in determining whether or not an institution should mount a program. An experienced expert can be helpful to the proposing institution by providing specific recommendations for ameliorating and/or avoiding certain weaknesses and potential pitfalls. Above all, the consultant aids the student-consumer by insuring that the educational services purchased are comparable in quality to those received by others in similar programs throughout the country.

Both the college/university and the State coordinating agency should expect trenchant, critical observations from a consultant. They should be consonant with reality and, thus, reflect the situation as it actually is. Consulting is truly arduous work; and, if it is to be done well, the individual must undertake the work knowing that a thorough evaluation is an extraordinarily demanding task. In selecting a consultant, the institution/agency should ascertain whether or not the individual possesses this personal capability. Realistically, in this process there are several important factors at stake: (1) the reputation and the future of the institution, including the faculty involved in the program being considered; (2) the professional life of the students who might matriculate in the program; and (3) the reputation of the consultant him/herself. Hence, the selection process and role of the consultant are important to the institution, its students and to the evaluator him/herself.

INGREDIENTS FOR EVALUATION

From a practical perspective, one can say that the role of the consultant is a very direct and straightforward one. Utilizing his/her professional expertise, the evaluator examines fundamental benchmarks in assessing the quality of the Master's program. Let me take this opportunity to cite the essential questions which the consultant must answer critically; the listing is certainly not intended to be all inclusive, but it serves as a point of departure for the evaluator.

(1) Curricular matters

Does the curriculum represent a current and sound approach to advanced study in a legitimate field of inquiry? Are the underlying educational principles of the program academically sound? Is the distribution of required courses, electives and research appropriate to the purposes of the program? Does the program focus on the subject in such a way that the student will be at the cutting edge, at the top of the state of the art, when the person completes the Master's level work? When it is appropriate, does the course of study provide for interdisciplinary work?

(2) Faculty

Do the faculty possess the appropriate academic preparation to offer a program at a high level of quality? Are their professional activities consonant with the broad range of courses to be taught? Have they done their own research so as to provide the proper academic environment for their students? Does it seem that the faculty have a genuine sensitivity to students and their needs so that students might really benefit from the program?

(3) Institutional Mission

Is the program philosophically compatible with the mission of the institution? Does the program support and complement the institution's philosophical goals? Is the institution attempting to capitalize on a current phenomenon and perhaps abandoning its basic educational thrust as an institution of higher learning?

(4) Facilities - Fiscal Support

Does the institution have at least adequate facilities to support the program? What are its capabilities in the areas of the library, laboratories and computer facilities? Does the institution have other educational tools/resources available to mount/maintain a program of high quality? Do faculty members have adequate office space and research support (space, laboratories, aids) to benefit themselves and their students? Is there an institutional commitment to fund the program adequately to foster its quality? Are the library holdings/periodicals reflective of the state of the art? Will the student find an academic environment conducive to the advancement of learning?

(5) Need

Is there a need for the program? Is it likely that its students will be able to secure employment and/or continue advanced study upon graduation? Have needs-assessments studies been done to document the need factor? What sampling techniques were used to establish the question of need? Would the new program result in unnecessary duplication (proliferation) of programs?

(6) Students

Are the admissions requirements predicated on a rigor which will help to insure the quality of the program? Are the student selection and counseling procedures adequate to meet the stated purposes of the program? Are varying forms of financial assistance available to students? Can one assure the student the program is one of substance and genuine quality? (It may very well be that should a program or a course not possess the quality it is purported to have, the student should have some means of recourse, e.g., tuition refund. Obviously, this is a controversial issue.)

(7) Program Objectives

Does the program meet the objectives stated by the institution? Does the program really reflect sound, conscientious academic planning so that the stated objectives are realizable and will promote a program of quality?

(8) Consultant's Recommendation/s

Having ascertained the responses to so many insightful questions, the consultant, now in a unique position to aid the institution and/or the State agency, and protect the consumer of the program, must produce a report which details with specificity the findings of the evaluation. In so doing, the consultant really must, in addressing each of the questions above in concrete terms, detail the strengths and weaknesses of the program and make definite recommendations to ameliorate any weaknesses which the evaluation may have yielded. A definite recommendation for approval or disapproval should be incorporated into the consultant's report.

PROBLEM AREAS

There are obvious reasons for utilizing the expertise of a skilled consultant. However, the consultant system can fail for numerous reasons.

(1) There is, at times, the question of whose consultant the person is. Sometimes a college/university employs a consultant to review a program and at times a State coordinating agency may do so. It should make no difference who hires the evaluator--the same objective, honest overview should be forthcoming. However, having been an academic dean, and having employed consultants to evaluate various Master's level programs, and now engaged in a State coordinating agency, I know that it does make a difference who employs the consultant. Frequently, the campus personnel will, perhaps unconsciously, attempt to co-opt the evaluator.

Campus based personnel share a special affinity with the evaluator; they will ask to share notes and keep in touch before the final report is drafted. They will tell the evaluator that negative comments can lead to non approval. As innocent as things may appear to be or are, they do, in a very subtle way, influence the dynamics of the evaluator's report. Taken together, these innocent or sophisticated forms of behavior can co-opt the consultant.

Concomitantly, a State agency can attempt to guide a consultant, and there can be a very fine line drawn between a subtle form of indoctrination and the necessary advice and direction which must be shared with an evaluator. Hence, the co-opting of a consultant can also occur in a State agency. One would like to believe that the independence and sophistication of the consultant would obviate such a thing from happening, but experience indicates that this is not always so.

(2) Occasionally, a consultant's expertise can be so specialized that he/she fails to maintain a broad perspective, militating against a study which will examine both the broad strokes and the fine points of an academic program. The consultant must view the proposal in its totality and not just some esoteric points.

(3) An out-of-state consultant can frequently bring a different perspective to the task, but the person may really lack familiarity with the local context. The objective view of an outsider can yield salutary results, but the local dynamics/politics also have to be considered.

(4) Personal, philosophical biases may prejudice a review.

(5) Perhaps the most difficult thing for a consultant is to present negative comments on a program developed by peers. There is, at times, an unwillingness to state recommendations objectively without ambivalence. There are consultants who lack the ability to say "no" to a weak program. The trenchant, hard hitting analysis shared in an oral report is frequently weakened in a written report. There seems to be a genuine reluctance to be openly critical, hence the "watered down" written report syndrome occurs.

The institution and the State coordinating agency need to know about the strengths and the weaknesses of a program. The integrity of the institution is at stake; the State agency has the obligation to assure the public of the quality of the program, and the consumer certainly has the right to be apprised of its quality. Hence, the evaluator has the duty to present a thorough, objective and honest statement about the program he/she has been asked to review.

Not every program should be approved, nor should every program stay in existence. Consequently, as the consultant attempts to protect the consumer, it should be obvious that the evaluation must paint the picture as it really is. If this not be the case, the consultant will have perpetrated a real injustice on others as well as on him/herself.

(6) When the State coordinating agency chooses to ignore the consultant's report, the integrity of the consultant process is justifiably called into question.

SUMMARY

In evaluating new or existing Master's level programs, the consultant should play a significant role in discerning the strengths and weaknesses of the program. In undertaking this task critically, the consultant can protect the unknowing consumer, the student, who has every right to expect a Master's curriculum of substance and quality.

However, the consultant system can fail for various reasons. It will disfunction because of processes within the institution or the State coordinating agency, or because of inadequacies within the consultant him/herself. However, there are several recommendations one can make to insure the integrity of the process as well as to protect the consumer of the final product.

RECOMMENDATIONS

1. The selection process for consultants must be a rigorous one that will insure that the individual has the academic credentials and breadth of experience to examine the whole picture.
2. The consultant should be told, unequivocally, that a critical part of the evaluator's role is to protect the consumer who should be able to benefit from the program.
3. The charge to the consultant should be specific, delineating with exactness the nature of the review expected.
4. Provision should be made to insure that the consultant cannot be co-opted, even subtlely, by the institution or State coordinating agency. One would have to be very direct about this and indicate the ways in which this could occur.
5. The consultant's report should be indepth, detailing the strengths and weaknesses of the program. At least two examples of exemplary consultant reports should be made available to each consultant so that the person will know what is expected. One would have to take appropriate measures to insure the confidentiality of the original documents.
6. The consultant's report should make very definite recommendations, including a statement as to whether or not the program should be approved or not approved or approved contingent upon certain modifications within the program.

BEHAVIOR-BASED TEACHING EVALUATION FOR SPECIFIC EDUCATIONAL PROGRAMS

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The Problem

Among the many dimensions that are important in the assessment of the quality of educational programs is the reactions of students to the teaching. Although this is only one of the measures of the success of education, its importance is sometimes exagerated because of its availability. Student ratings are often made when other potential measures are not. That is, in the absence of peer evaluation, standardized student achievement measures, or other assessments, student ratings are often the *only* measure.

As the student body is a crucial constituency of any educational program, student reactions provide valuable information to the faculty who are evaluated, to administrators, and to students.

There are many problems inherent in the process of one individual evaluating the performance of another (see Zedeck & Blood, 1974, chapter 4; Landy & Farr, 1978). Even assuming a good-faith effort on the part of the evaluator it is difficult to interpret the information that is provided. For this reason organizational psychologists have given a great deal of attention to the performance evaluation process. A first step in the enhancement of the value of interpersonal evaluations is the use of a standardized procedure. This has the advantage of making evaluations directly comparable. Usually a rating process is used, and evaluations are asked to provide their assessments on a standard set of response categories (e.g., very bad, bad, neutral, good, very good) and a standard set of evaluative dimensions (e.g., initiative, conscientiousness, knowledge, communication ability). Both the dimensions and the response categories in typical ratings are subject to a great deal of interpretation leading to systematic biases in the way they are used (Guion, 1965). These biases in the manner that evaluators respond to ratings can result in the outcomes giving more information about the person who did the rating or about the rating situations than about the performance that was rated.

Indeed, when the specific rating situation is one where students are rating instructors a number of influences have been found that intrude on the rating process (Miller, 1978). These disturbances detract from the ability of the ratings to reflect the actual teaching performance. Ratings may be influenced by: (1) characteristics of the students such as the amount of previous college coursework (Frey, Leonard, & Beatty, 1975; Gage, 1961; Lovell & Haner, 1955; Rayder, 1968; Rodin & Rodin, 1972), (2) content of the course (Bassin, 1974; Rayder, 1968), (3) class size (Crittenden, Norr, & LeBailly, 1975; Gage, 1961; Kohlan, 1975; Wood, Linsky, & Straus, 1974), or (4) whether the course is required or elective (Gage, 1961; Lovell & Haner, 1955). With all of these interferences in the rating process it is extremely important that procedures be developed to minimize the amount of response bias in student ratings.

Requirements for a Solution

What are the characteristics of useful student evaluations? First, they should be constructed so as to provide information that is meaningful. That means that the rating procedures should counter response biases so far as is possible, and they should give information that is comparable across ratees and raters. Second, the rating results should be specific. Vague allusions to general qualities or overall assessments tell very little about what went on in the classroom. The person trying to derive information from an overall rating (administrator, rated faculty member, student) must interpret the meaning of high, medium, and low ratings. The interpretation will undoubtedly reflect the beliefs and values of the interpreter. Third, the evaluation should provide a basis for a constructive action response. A performance evaluation should contain within it instructions for improving performance. That instruction should say what is to be done, not just exhort the performer to "do better next time."

Behaviorally Anchored Rating Scales

In recent years a performance appraisal technique has been developed to respond to the accuracy, specificity, and action-orientation requirements just mentioned. A specified set of procedures is followed to construct evaluation dimensions called behaviorally anchored rating scales (BARS) that use descriptions of behaviors to define the response categories of a set of dimensions (Campbell, Dunnette, Arvey, & Hellervik, 1973; Schwab, Heneman, & DeCotiis, 1975; Smith & Kendall, 1963). Because of the procedures by which the BARS are developed they have a number of positive features when used in rating performance.

The most salient feature of the BARS is their definition of performance in terms of observable behaviors. A critical incident technique (Flanagan, 1954) generates descriptions of behavioral episodes that define the scale points (and thereby the scale dimensions). It is not necessary to translate evaluations from general trait names (e.g., dedication, human relations skill) into more concrete terms. Scores are already specified according to relevant behaviors. It is easier to understand the meaning of these behaviorally defined evaluations, and it is easier to avoid reacting defensively to a low evaluation. One can hardly react other than defensively to a low mark on a trait-name scale. The natural reaction to "You're not very conscientious," is "Yes, I am." But if a BARS evaluation says "You don't return quizzes within two weeks," one can react with a discussion of the behavior rather than reacting to an attack on one's character.

A second feature of BARS is that they represent salient performance dimensions. The performance episodes that anchor the scales are generated by members of the population who will do the rating. Students would be used to construct BARS for student evaluations. Inappropriate dimensions may be produced by deriving scales from other than the population of raters (Borman, 1974). This can happen if scales are developed externally to the situation in which ratings will take place.

Third, the meaning of the response categories on the BARS are empirically verified. Whereas, in a traditional rating procedure there is no check against the problem that one rater's "extremely good" is the same as another rater's "fair," the BARS procedure uses a double elimination system to screen out scale anchors that do not have agreed-upon meaning. Every behavioral episode is subjected to two judgments in an empirical sample drawn from the rater population. Each item is judged as to the performance dimension it represents, and all items with low agreement are dropped. Then, each item is rated as to the level of performance it represents, and all items with large variances are dropped. The final pool of scale anchors therefore contains only those items that have unequivocal meaning throughout the rater population.

A fourth feature of BARS is that they are stated in the language of the rater population. Since the behavioral items are generated in a sample of the rater population, they reflect the jargon and nuances of that population. This feature lends credibility to the scales among raters and helps to give them meaning.

Finally, but not least importantly, BARS can be tailored to the special features of the organization in which they will be used. Because persons in a situation generate the behavioral incidents from their experiences, items contain the special emphases and properties of the organization. In educational settings, including research experiences, visits to field settings, tutorial teaching, independent study projects, internships or other distinctive attributes the behavioral episodes that anchor the rating dimensions would describe relevant events.

A Specific Case

As a first step in the development procedure the 15 students in an organizational behavior course in a program leading to a Master of Science in Industrial Management degree were asked to designate appropriate evaluation dimensions for assessing teaching behavior in their program.

For each dimension name a one-sentence definition was developed through group discussion. Fourteen performance dimensions were identified (see Table 1). Then, these same students were asked to provide behavioral incidents that illustrated poor, appropriate, and good performance on each dimension. This resulted in a total of 630 (15 x 14 x 3) behavioral items.

As is usual in this phase of BARS development, the 630 items contained many redundancies and many items that were not descriptions of observable behaviors. The items were called to eliminate duplications and nonbehavioral episodes. The resulting 214 items were edited into an "expectations" format. That is, the behaviors were restated to describe performance that "could be expected" or "you would expect."

A sample of 100 students in the program then made two judgments for the list of items. First, each of the 214 items was categorized according to the performance dimension it illustrated, and second, each item was rated on a 7-point scale according to the level of performance it represented. Ratings ranged from 1, extremely poor behavior, to 7, extremely good behavior. Items were eliminated if the agreement as to the dimension represented was less than 80% or if the variance of the ratings exceeded 1.0. These elimination standards filtered the episodes into a final pool of items with consensus on their performance dimension and level.

When the final pool of items was grouped according to dimensions, five of the original 14 categories did not have sufficient items to construct scales (see Table 1). This loss of dimensions can happen because: (1) the dimension is too ill-defined to allow the specification of illustrative observable behaviors, (2) the dimension is so similar to another that the items conceived for it are categorized as representing other dimensions, or (3) there is low agreement as to the appropriateness of the specified behaviors.

For those dimensions, with surviving items, scales were constructed using at least five items to anchor the meaning of scale points. Items were placed on the scales at the point of their mean rating. An example of one of the scales, objectively, is displayed in Table 2.

The nine scales were placed in booklets with a cover sheet and instructions so that they can be used by students to evaluate performance. Evaluators are asked to mark the point on the scale that represents typical behavior of the professor being rated. The behavioral incidents define the scale points by providing illustrative examples of the behaviors that would be rated at various levels on each dimension. The behavioral anchors give substance to the meaning of the dimensions and the response categories. In using the scales, raters are not restricted to marking scale points that are defined by behavioral incidents, nor is it necessary that they have seen the professor do one of the listed behaviors.

Since professors can see the dimensions in advance of teaching a course in the program, they can know what kinds of behaviors will lead to high or low student evaluations. If a professor receives a low rating, information is available in the scales to suggest behaviors that will earn higher ratings in the future.

Conclusion

An extremely important issue in the collection and use of student evaluations is the meaning that can be ascribed to the scores that are elicited. Behaviorally anchored rating scales (BARS) define the rating dimensions and the response categories along the dimensions by specifying the behaviors that are represented. This approach aids raters in making accurate use of the scales (Borman & Dunnette, 1975; Campbell, Dunnette, Arvey, & Hellervik, 1973; Keaveney & McGann, 1975), however, the psychometric superiority of BARS is not unequivocally supported in the research literature (Bernardin, 1977; Bernardin, Alvares, & Cranny, 1976; Borman & Vallon, 1974; Burnaska & Hollman, 1974; DeCotiis, 1977; Friedman & Cornelius, 1976). Ratees prefer BARS and the information provided by the behavioral format promotes improved performance (Ivancevich, 1979). The procedure for developing the scales provides information that is useful for other organizational purposes (Blood, 1974). BARS are informative to the persons who are rated, administrators who are interested in faculty development as well as evaluation, and to students who want to know about a professor before taking a course (Harari & Zedeck, 1973). They can be tailored to take into account idiosyncratic aspects of nontraditional education programs and programs with special emphases and features.

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Table 1

Dimensions for Evaluating Teaching in a Master of Science in Industrial Management Program

A. Knowledge of subject - demonstration of exposure and expertise in a subject area.

B. Organized material* - the extent to which the professor prepares and presents the subject material in a logical, clear, and concise manner.

C. Transfer of knowledge - extent to which the professor causes students to acquire a working knowledge and understanding of the subject.

D. Fair grading - the extent to which grades reflect demonstrated performance on announced class goals.

E. Test construction for appropriateness - the extent to which tests are a representative sample of the domain of course content.

F. Testing as a learning situation - the extent to which a student knows more about the subject or is more aware of what s/he doesn't know after the test is completed.

G. Concern for students - interest in the academic and personal welfare of the students.

H. Availability - the extent to which the professor is accessible to students outside of the classroom.

I. Encourage original thinking - encourages the students to generate questions and ideas.

J. Formality/informality - the extent to which the professor adheres to a rigid and structured class teaching pattern.

K. Objectivity - openmindedness; willingness to listen to and consider student input.

L. Expose students to own and others' research - the degree to which a professor introduces the students to own and others' research in the subject area.

M. Meaningful assigned work - the extent to which the assigned work contributes to the announced class goals.

N. Goal setting - the extent to which the professor identifies the course objectives.

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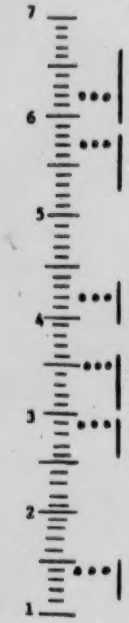
*Underlined dimensions were retained in the final scales.

Table 2

Objectivity

Openmindedness - willingness to listen to and consider student input.



You would expect this professor to listen to all student input in class discussion, and by discussing students' ideas in class show the strengths or weaknesses of the students' ideas.

You would expect this professor to answer questions of the students, and spend adequate time discussing student ideas.

You would expect this professor to listen to all student input but not to discuss the ideas in detail.

You would expect this professor to acknowledge the fact that a student has spoken, but move on the lecture/discussion in progress.

You would expect this professor to encourage classroom discussion, but sometimes ridicule student input.

You would expect this professor to refuse to listen to student input.

An Ecological Assessment as One Component in the Evaluation of Off-Campus Graduate Programs

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Off-campus graduate degree programs have to be evaluated in terms of the extent to which they benefit from the advantages of centralization i.e., are essentially identical to on-campus programs, but they must also be judged on the degree to which they benefit from the possibilities inherent in decentralization i.e., the unique characteristics and opportunities at off-campus locations.

One such characteristic is the relatively large proportion of what Cassara (1978) and others have referred to as the "Non-traditional" students who attend extension centers on a part-time basis exclusively. For these students, attending school is a secondary rather than a primary life activity. This has many meaningful implications; not all of which are ominous. Unfortunately the use of the term "Non-traditional" all too often implies a meaning which itself prevents the university from benefiting from the opportunities available when planning for part-time students. The term "Non-traditional" is often used in such a way as to blame the victim for refusing to cooperate and being like "traditional" students. It could just as easily be said that the difficulty resides not with the "Non-traditional" student but with the "Partially responsive" university which is structured essentially to meet the needs of "traditional" students. Whatever else is included in evaluation instruments for off-campus graduate programs serious attention must be paid to the issue of university responsiveness to publics who happen to be part-time students.

At the University of New Haven an apparently provincial question has been posed which we in the graduate school view as being of much broader import. Is the experience of pursuing an M.B.A. degree at our off-campus center in Groton (a location in Eastern Connecticut) similar to the experience of seeking an M.B.A. degree at our off-campus center in Danbury (a location in North Western Connecticut)?

Our Groton classes are offered in a modern (1977), multi-level, red brick, practically windowless, state regional technical school. The school has an energy saving climate control system regulated by a computer which has been affectionately named "Hal". The building is situated on a hilltop surrounded by 100 acres of state owned open land. This site was a former indian encampment overlooking Long Island Sound. Many of the students are either naval personnel from the sub base in Groton or employees of the Electric Boat division of General Dynamics.

The M.B.A. classes in land locked Danbury, on the other hand, are housed in an office complex inconspicuously situated amidst a typical extended strip shopping center with a movie theatre and a supermarket as anchor points. Students arriving for classes park in the same huge parking area as that provided for shoppers. They walk towards the same line of stores; enter a set of large glass doors where they find themselves facing a lobby directory on which "UNH second floor" is prominantly displayed.

Some students at both the sites described are pursuing the same M.B.A. degree from the University of New Haven. Does it matter that the two settings are very different? It is commonly assumed that whatever differences do exist are epi-phenomenon and have no meaningful consequences. How valid is that assumption?

There is a rapidly growing and already impressive body of literature which in its most extreme forms takes a position approximating environmental determinism. Environmental settings are seen as capable of being highly coercive towards the behavior of the people who inhabit them. Much human behavior is considered situation specific in that people, in the long run, come to meet behavioral expectations and rules built into places. People in a church engage in passing behavior in the corridors, seated listening behavior in the pews and upright social behavior in the meeting area. When social behavior occurs in narrow corridors, while others are trying to pass, all sorts of signals are sent urging conformity to implicit rules i.e., the expectations of the setting.

The behavioral expectations of any given setting may be communicated by a plethora of environmental cues such as architectural design, the pattern of placement and type of objects which fill the space and the messages emitted by other occupants who themselves form part of the environment.

If an important element in the learning process is behavioral change and if environments are capable of being coercive towards behavior then any university interested in learning has to, at least, entertain the possibility that the learning environment may help or hinder the learning process.

Some of the coercive features of the environment discussed in the literature appear more germane than others when considering those particular environments in which off-campus programs are offered. At the Graduate School of the University of New Haven we are in the process of developing instruments with which we will attempt to measure similarities and differences from campus to campus. These results will then be compared with program outcomes.

The balance of this paper will suggest some of those dimensions that UNH will [illegible]uding in a final instrument for measuring the ecological aspect of its off-campus programs.

Level of Manning

One environmental characteristic that might well be expected to vary from campus to campus is what Barker and Gump (1964) describe as the degree to which the setting is undermanned. All settings have basic functions which must be performed in order for the setting to survive in its present form and meet the needs of its inhabitants. A university campus for example needs people to perform the teaching function, the student function, the maintenance function, the administrative function, the advising function, etc. If all of the roles are adequately filled it could be concluded that the setting is optimally manned. Undermanning might take the forms of an adjunct instructor who is not prepared to provide adequate advisement or of a class composed of only six students who for whatever reason are not at a point of readiness to make meaningful contributions in a dialogue with the instructor.

There is a growing body of research findings which indicate that occupants of undermanned settings are exposed to implicit and explicit pressures which coerce them to perform all the functions which are necessary in that setting. The results are surprisingly satisfying to those involved: they feel more competent; they sense a challenging opportunity; they feel more important; they become more involved in the group; they experience personal growth. These findings have been demonstrated in high schools and in studies of small and large churches; why not off-campus graduate programs? If these findings can be duplicated at the graduate school level they would suggest one way in which off-campus programs may actually have an advantage over the same programs on-campus.

The Social Environment

Another dimension of an environment is the people who populate the space. Sells (1963) and Linton (1945) take the position that much of the cultural environment is represented by other people. This position suggests that the character of a peopled environment can be grasped if you have some way of profiling the character of the inhabitants. The example given earlier of our Groton location being populated by people who either were members of the Navy or employees of an organization dependent on naval contracts raises the intriguing (even if oversimplified) question of whether there is a degree of "military mind set" that may permeate that learning environment.

Astin and Holland (1961) developed an instrument, "The Environmental Assessment Technique" which permits the characterization of a student body by utilizing the choice of major fields represented at the school. The "EAT" breaks down majors into six types of characteristics which set the tone of the social environment:

1. Realistic (agriculture, physical education, engineering)
2. Intellectual (architecture, mathematics, philosophy)
3. Social (education, nursing)
4. Conventional (accounting, library science, economics)
5. Enterprising (political science, foreign service, industrial relations)
6. Artistic (music, english, fine arts)

The Physical Environment

Using the very same categories as those in the "EAT", Holland (1966) describes environments according to the types of activities they are designed to house. Thus, an engineering

lab would be considered a "Realistic" setting. The comparison of a personal preference i.e., choice of major, with a given environmental design would reveal compatibility.

In order to compare one campus with another we need commonalities and a reference point. Thinking in terms of the previously cited examples of our Groton and our Danbury graduate centers there were indeed some commonalities. Aside from the obvious similarities in program content we want to look at the milieu. They both have classrooms, corridors, a building and external surroundings or grounds. Furthermore, each of these concentric environments can be broken down into the physical structure, the activities which typically take place there and the people who usually occupy the space. Thus, for example, in Groton the external surroundings are natural fields and woodland which are usually absent of people but which entice students to engage in taking a panoramic look at the expanse of scenery. In contrast our Danbury site is surrounded by stores and a theatre where shopping and window shopping are engaged in by a large heterogeneous group of people who are drawn together by the magnetic attraction of the goods and services available in the shopping center. A reference point which we hope to study is the extent to which each of the above concentric environments is perceived to be conducive to the learning process. To illustrate, we will ask each student the extent to which the other activities which go on outside the building in which his classes are housed are conducive (if at all) to the learning process.

Level of Maintenance

Before moving to a new facility at one of our centers

UNH classes were held in a local public high school. The high school administration was having inordinate difficulty in exerting control over the buildings maintenance. The heating system would frequently be inadequate to the New England winters. There were frequent breakdowns and ineffective heating even when the unit was operating. During the day the school was overcrowded and running on double sessions. The custodians and high school administration were not able to keep up the necessary maintenance function. When our students arrived during the late afternoons they would find themselves surrounded by sticky floors, residues of food, lunch bags, candy wrappers, etc. Bathrooms would rarely be equipped with tissues or hand towels. Our students would frequently have to sit still through a three hour class all bundled up because of the low classroom temperatures.

Imagine, if you will, married graduate students in their 20's and early 30's, who were often employed in middle management positions, who had made large sacrifices to attend graduate school, enduring these indignities. That would have been bad enough but to make matters worse, the high school administrators, who themselves were under increasing pressure from the local board of education, started looking for scapegoats. They became convinced that the graduate students were responsible for much of the problem and decided to withdraw the privilege of buying coffee at the cafeteria during breaks. One evening administrator took to confronting instructors and students and berating them as if they were irresponsible children who needed lecturing. In this way a maintenance problem was transformed and started to poison the social atmosphere. After fruitless negotiations it became clear that we had to move.

Permanence versus Transience

Attending graduate school is a major commitment for students. At stake are money, time, effort and self in the sense that long range plans can only be pursued at the expense of short range alternatives. It is not hard to understand, therefore, why off-campus students are acutely conscious of any indications of faltering commitment on the part of the university. What kinds of things are taken as indicators of commitment? An office with a receptionist and a telephone (identified with the university) and located at the site, counterbalances the ephermal impression given by a center that is open only during classes and operates only within classrooms. Providing students with notices, school newspapers and all printed information distributed on the main campus reduces the sense of isolation and is taken as an indication that the university cares enough to make it happen.

A high turnover rate of faculty makes it difficult for students to identify with someone representing the field. Graduate students need mentors who provide a symbolic bridge into the field. Mentor relationships take time to develop.

Sufficient planning of schedules if important for each campus. Class cancellations, inappropriate or untimely offerings indicate that insufficient attention is being paid. Since the administration of the off-campus programs has to be coordinated from the main campus, which is frequently separated from each center by many factors only one of which is mileage, a communications network is necessary. At the most rudimentary level the universities phone system must not place unnecessary obstacles in the way of contacting the off-campus centers. Trunk lines with waiting lists discourage phone communication. At an intermediate level is the communication necessary between university representatives and the representatives of the organizations from whom classroom space is being rented. At the most abstract level the university should be prepared to systematically assess the educational needs of current students and of potential students.

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MASTER'S PROGRAM REVIEW AT A SMALL INSTITUTION

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Although a system of regular comprehensive academic program review is endorsed and indeed presumed by the Council of Graduate Schools, the several regional associations of graduate school deans, and the bureaus of higher education in the several states, and although the body of literature on academic evaluation is growing rapidly, academic administrators desiring to implement a system of program review on their campuses face some difficulties not always acknowledged by the associations or the research. First, the administrators are probably far [illegible] familiar with the literature supporting program review than are their faculties, most of whom quite appropriately spend their reading energies in their respective disciplines. Second, the prospect of program review, once introduced, will presumably have more appeal for reviewers than reviewees.

At a small institution, particularly one which offers no graduate work beyond the master's degree, the difficulties are compounded since much of the discussion of program review is predicated on doctoral programs. The now-definitive research conducted by Mary Jo Clark under the auspices of the Council of Graduate Schools and Educational Testing Service utilizes data gathered from PhD-granting institutions and discussion at a recent CGS meeting emphasized the difficulty in using this CGS/ETS study in the "multi-dimensional or non-research degrees such as the MAT or DAT." There can be, as another participant at the same CGS meeting remarked, "an air of unreality" in the discussion of the master's degree.[1] In addition, efforts on the part of academic administrators to share research materials on program review with program faculty may backfire and cause faculty to reject the entire topic of program review as unrealistic, oversophisticated, and threatening. More indirect measures are necessary in order to focus institutional attention on this subject.

At The College of Saint Rose, a liberal arts college with a total population of 2500 and a graduate population of 800 students spread over fifteen graduate programs, the subject of program review was first introduced in 1975. The idea had been given informal airing for some months prior to its formal articulation and there was a general, if unspoken, consensus among graduate faculty and program directors that program review would be beneficial to the institution. It fell to graduate administrators to devise and propose a system for the review process itself.

Several assumptions structured our thinking: a system of program review should be tailored to the needs of the institution, should elicit data necessary for planning, should be as direct and as realistic as possible, and should mandate confrontation of problems without becoming unnecessarily threatening. As a first effort (regular review of graduate programs prior to 1975 was associated only with reregistration procedures mandated by New York State and did not involve policy committees) the review process should involve as many program faculty as possible and should produce a rather formal document for study by members of the Graduate Academic Committee (GAC). A proposal was accordingly developed, discussed and approved by the Graduate Academic Committee, and implemented during the 1975-76 year with the review of three graduate programs. These first three were volunteered by their program directors; subsequent designations of programs for review have been made by the GAC.

Briefly, our present review process is as follows: During the summer GAC meeting of each year, four programs are designated for review during the spring of that academic year. Program faculty develop the review during the year with assistance of the dean's office and any other appropriate persons. The review is presented at the first spring GAC meeting, ordinarily in March; program faculty explain, clarify, and comment on the review document and respond to questions by GAC members. Following this meeting faculty have approximately one month in which to respond more formally to GAC questions, returning to the next meeting with follow-up documentation. At that meeting a formal vote is taken to accept or reject the review document.

Each review document contains the following program information:

1. Aims and objectives of the program
2. Admission criteria and policies for the program
3. Provisions for academic advising in the program
4. Options possible in the program, for instance internships
5. Description of final evaluation, for instance comprehensives or thesis defense, in the program
6. Data on students admitted to candidacy and graduated during the past three years
7. Research facilities and both student and faculty research projects
8. Future directions and hopes of faculty for the program
9. Weaknesses and problems of the program as indentified by the faculty
10. Other information considered appropriate by the faculty.

As can be seen from the above listing, the review document combines data-gathering with faculty analysis and evaluation. The open-endedness of the document allows faculty to incorporate any material they consider important, a way of lessening fear of program-to-program comparison. Not surprisingly, the first two years of review generated documents which were top-heavy with factual data and comparatively weak in reflective analysis. In the past two years the documents have become more detailed as faculty have confronted problems and have made recommendations

both to one another and to the college administration. As faculty have become more familiar with the review process and have read more of the supportive literature in this field, several programs have designed and incorporated instruments for obtaining input from students, graduates, faculty, and, in some cases, specialists outside the institution.

The benefits of a program review process of the above sort can be determined by two factors: the diligence and thoroughness of the group preparing the review document and the willingness of the Graduate Academic Committee members to react honestly and firmly to the presentation. From the beginning both factors were positive: faculty worked well, if somewhat fearfully, from the first year of the review and GAC members reacted specifically to each presentation. It is perhaps not surprising that the first three reviews, all "volunteer," were directed toward three exceptionally strong graduate programs, biology, English, and reading; consequently, although GAC members issued several directives and requests for follow-up action, they were not confronted with any major difficulty. The second year called for more decisive action on the part of the GAC, which placed one graduate program on probation with the directive to return to the policy committee after a year of study. Even more serious weaknesses were discovered in a program reviewed during the third year; the review document for this program was rejected altogether and the program faculty were told to start over.

Several benefits can be cited for both the review process and our experiences with it during the past four years. The process is realistic and relatively simple; it has evolved from the character of the graduate school and reflects the distinctive elements of the situation at Saint Rose. As an example of formative, rather than summative, evaluation, it would seem to illustrate the advantages noted by Anderson and Ball of an evaluative method which stems from the nature of the problem.[2] At the same time it incorporates many, if not most, of the "dimensions of quality" noted in the CGS/ETS materials, mandating specific data and directing faculty to be guided by criteria established by the professional associations. As the process has evolved, the documents produced each year have become more sophisticated, more detailed, and more cognizant both of current research and the need for input from program constituencies. Since the review process is a communal one, program faculty are forced into rather close interaction with one another and with the graduate dean; several problems and weaknesses have, as a matter of fact, been addressed in small groups without ever needing to be articulated in the larger committee. Program faculty, especially those in areas where research is almost always theoretical, have gained enormous experience in development of survey instruments, organization of data, and analysis of problems. Without mandating unnecessary and inappropriate program-with-program comparisons, both faculty and GAC members have, nevertheless, realized that certain programs have, for a variety of reasons, stronger and more clearly articulated objectives, more satisfied students, more creative research activities, and more claims to academic fame. Finally, confrontation, redirection, revision, and both praise and condemnation have been possible, thus strengthening the graduate school and its programs.

Disadvantages should also be noted: review documents may be only as strong as program faculty and/or the staying powers of the dean; and program faculties, while noting problems, may be inclined to place blame for the problems elsewhere, thereby necessitating administrative intervention. The GAC, although firm in

its rejection of certain review documents, has not yet been faced with possible termination of a program, although that situation may be developing at present; it is not certain how successful that effort will be. The review process does not, it should be noted, address itself to matters of cost effectiveness and financial support; these matters are addressed by the college budget and long-range planning committees.

The College of Saint Rose can now look back on four years of experience with systematic review of master's programs. Clearly the process is a workable and beneficial one. It is evident now, however, that the institution is ready for the next step: a move to a more detailed and sophisticated process. There is strong faculty support for this move since faculty are now experientially convinced of the necessity for regular review; consequently the most recent GAC meeting established a subcommittee to prepare a new program review proposal. The subcommittee, which will have its meetings in February, 1979, has several hopes: to eliminate any aspects of the program which seem no longer necessary in the document; to incorporate some features, among them a provision for student participation in the review, which now seems appropriate; and to organise and unify the entire process with reference to the CGS/ETS material and other research wherever possible. Convinced of the value of relative simplicity, committee members hope to retain a brief evaluation instrument; this document will, in its first draft form, be available for distribution at the Conference on the Assessment of Quality and will in turn quite probably be modified by findings of that conference.

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A TWO-DIMENSIONAL MODEL FOR THE EVALUATION OF MASTER'S PROGRAMS

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Concerns for accreditation, pressures for accountability, and desire for professional excellence require that master's programs be evaluated in terms of the quality of student performance after graduation. In order to attain a relatively unbiased picture of student performance, it is desirable to gather data not only from the graduates themselves but also from their employers. The passage of the Family Rights and Privacy Act of 1974 (P.L. 93-379), however, has brought to light a number of problems concerning the collection of such data.

This paper describes and discusses the approach that was recently used to assess the quality of a Master's Program in Elementary and Secondary School Administration at The Cleveland State University College of Education. The design of the study reflects an attempt to gather evaluative data useful for decision making while protecting the rights of the participants.

Design of the Study

The major assumption behind this study was that persons who are in a position to observe the administrative performance of graduates of a Master's Program in School Administration will be able to provide powerful evaluative information about the program.

Originally the design of the study was to be a simple one: supervisors of those program graduates currently holding administrative positions in the schools would be asked to evaluate the graduates' performance in key administrative areas. This design had to be modified for two reasons: (1) the Family Rights and Privacy Act of 1974 prohibits the disclosure of data about individuals without their knowledge and consent, and (2) Superintendents of Schools, whose opinions were sought, were reluctant to supply evaluative information about their employees to an outside agency.

The final design, therefore, was more complex than the original one. A letter (Appendix A) was sent to the thirty-six graduates who, according to departmental records, presently held positions in educational administration.[1] This letter asked them to evaluate the quality of administrative preparation that they received in the Master's Program in School Administration.[2] Graduates were also informed that a similar questionnaire would be sent to the Superintendents of their school systems asking them to evaluate the Master's Program based on experience with one of its graduates. Graduates were asked to return a card (Appendix B) if they did not want the questionnaire to be mailed to their school system.

After the deadline for receipt of cards had passed, Letters (Appendix A) and Response Sheets (Appendix D) were mailed to Superintendents or to immediate supervisors, if that were more appropriate, based on the particular administrative position of the graduate.

Level of Response

Two of the graduates returned the Response Card asking that the questionnaire not be sent to their school system. One of these persons indicated that he was not a graduate of the Master's Program, but had merely taken some of the courses. The other person no longer held an administrative position. The letter to a third graduate was returned, and it was later determined that this person was no longer working in the field of education. Of the remaining 33 graduates, 22 (67%) returned the Response Sheets, and their responses are reported in this study.

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[1] See Table 1 for a breakdown by position of the 36 graduates surveyed.

[2] See Appendix C for the Response Sheet for graduates.

Letters and Response Forms were sent to 33 superiors of graduates from the Master's Program. Responses were received from 29 persons (88%), and their responses are also reported in this study.

Overview of Findings

The superiors perceived the Master's Program in School Administration more favorably than did the graduates themselves. In each of the five specific dimensions,[1] as well as in "Overall Preparation," the mean scores for the superiors' perceptions were higher than those of the graduates (see Table 2).

The "Overall Preparation in School Administration" was rated rather favorably by the graduates and by their superiors (means of 3.84 and 4.21 respectively on a 5-point scale). Graduates saw Staff Personnel as the strongest area of preparation, and Business Management as the weakest (4.07 and 2.83). Their superiors tended to agree (4.33 and 3.62), although they also saw Student Personnel as a very strong area (4.34).

Table 3 reinforces the above findings. Sixty-eight percent of the graduates and 86 percent of their superiors rated the Overall Preparation in School Administration as "4" or better on the 5-point scale. In the area of Business Management, only 35 percent of the responding graduates and 52 percent of their superiors indicated a "4" or better. The largest discrepancy appeared in the area of Student Personnel, where 41 percent of the graduates, but 89 percent of their superiors, indicated "4" or higher.

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[1] The five areas of administrative performance surveyed were Instructional Program, Student Personnel, Staff Personnel, School Community Relations, and Business Management.

Comments by Respondents

The last item on the response sheets invited comments or suggestions regarding the Master's Program in School Administration. Only three of the twenty-nine superiors responding included such comments, and their comments were not particularly helpful for program evaluation. Graduates, on the other hand, provided much more usable information. Thirteen of the twenty-two graduates responding wrote comments dealing with overall evaluation of the Master's Program, with perceptions of particular instructors, or with thoughtful suggestions for program improvement, which they offered in the light of their experience on the job.

Recommendations

The major conclusion of this study was that graduates and their superiors in the public schools had a generally favorable perception of the quality of the Master's Program and its ability to prepare participants for positions in educational administration. Preparation in the area of Staff Personnel (including recruitment and selection, supervision, evaluation, and professional development) was perceived to be particularly strong.

Several recommendations are suggested by the results of this study:

1. Additional work in program organization, curriculum development, and program evaluation would be desirable. Some of this content might be able to be incorporated in Elementary and Secondary Administration courses. In addition, electives such as Education Evaluation and Innovation and Advanced Curriculum might be built into the Program of Studies of more students.

2. A heavier emphasis on areas of Business Management should be made a part of the Master's Program. Again, more work in this area might be done in courses currently taught. Another possibility is to require specific business management readings and projects as part of field work in school administration.

3. A self-study module on community resources should be developed to enable Administration students to learn more about this area, perhaps as a project in one of the required courses.

4. More work in the area of stress management and conflict resolution should be incorporated into the Master's Program in School Administration.

5. The assignment of a selected list of seminal works in educational administration and related areas as required reading in existing courses should be considered.

Work on the implementation of a number of these recommendations is currently in progress.

Conclusion

The model for evaluation described in this paper could be employed by administrators of other master's programs as a component of their assessment efforts. The model's two dimensions provide valuable comparative data while protecting the privacy rights of respondents.

Table 1

ADMINISTRATIVE POSITIONS OF PROGRAM GRADUATES
(N=33)

Elementary School Principals	5
Secondary School Principals	5
Elementary Assistant Principals	2
Secondary Assistant Principals	18
Supervisors/Coordinators	3

Table 2

COMPARISON OF PERCEPTIONS OF GRADUATES AND SUPERIORS REGARDING ADMINISTRATIVE PREPARATION IN VARIOUS AREAS
(Mean Scores)

Areas	Graduates (N=22)	Superiors (N=29)
Instructional Program	3.39	4.07
Student Personnel	3.36	4.34
Staff Personnel	4.07	4.33
School Community Relations	3.79	4.11
Business Management	2.83	3.62
Overall Preparation	3.84	4.21

Table 3

PERCENTAGE OF RESPONDENTS RANKING "4" OR ABOVE ON A FIVE-POINT SCALE

Areas	Graduates	Superiors
Instructional Program	50	74
Student Personnel	41	89
Staff Personnel	68	92
School Community Relations	52	75
Business Management	35	52
Overall Preparation	68	86

LETTERS TO GRADUATES AND THEIR SUPERIORS

Dear Graduate:

We are conducting an evaluation study of our Master's Program in School Administration here at CSU College of Education. To help us accomplish this goal, we are asking those of our graduates who are currently holding administrative positions to complete the attached questionnaire.

In order to get an additional perspective, we plan to send a similar questionnaire to the school system asking that the Superintendent, or another one of the graduate's supervisors, also evaluate our Master's program on the basis of experience with one of its graduates. Of course, names of individuals or school systems will not be used in analyzing or reporting the data. The purpose of the study is to provide us information for program development as warranted.

If you would prefer that we not mail the question to your school system, please sign and mail the enclosed card so that it reaches my office by __________. I hope that you will participate in this study, and I thank you for helping us evaluate our Program.

Sincerely,

Dear Superintendent:

We would appreciate your help in our efforts to evaluate the Master's Program in School Administration here at the CSU College of Education.

The person named below is a graduate of this Program, and, according to our records, is employed by your school system in an administrative position. We would be grateful if you would complete the attached form evaluating the Program, or pass it on to one of the person's supervisors for completion.

We have asked the Program graduate to complete a similar questionnaire, and we have obtained his/her cooperation in permitting us to send you this one. Of course, names of individuals or school systems will not be used in analyzing or reporting the data. Thank you for your assistance in the evaluation of our Master's Program.

Sincerely,

Appendix B

RESPONSE CARD FOR GRADUATES

Date:____________________

Department Chairperson:

I would prefer that the Program Evaluation Questionnaire mentioned in your letter of ___________ not be sent to my school system.

Signed____________________________

School System______________________

Appendix C

RESPONSE SHEET (GRADUATE)

Based on your administrative experiences since completing work in the Program, please give your evaluation of the CSU College of Education Master's Program in School Administration in each of the following areas. If you have no basis for evaluation on any item, circle the NB.

1. Preparation in the area of Instructional Program (including such areas as program organization, curriculum development, program evaluation).

NB 1-------------2-------------3-------------4-------------5
No Weak Moderate Strong
Basis

2. Preparation in the area of Student Personnel (including such areas as discipline, guidance, student information and records).

NB 1-------------2-------------3-------------4-------------5
No Weak Moderate Strong
Basis

3. Preparation in the area of Staff Personnel (including such areas as recruitment and selection, supervision, evaluation, professional development).

NB 1-------------2-------------3-------------4-------------5
No Weak Moderate Strong
Basis

4. Preparation in the area of School Community Relations (including such areas as communications, interpreting community attitudes, building relationships with community members).

NB 1-------------2-------------3-------------4-------------5
No Weak Moderate Strong
Basis

5. Preparation in the area of Business Management (including such areas as finance, budgeting, capital improvements, food service, transportation).

NB 1-------------2-------------3-------------4-------------5
No Weak Moderate Strong
Basis

6. Overall preparation in School Administration.

1-------------2-------------3-------------4-------------5
Weak Moderate Strong

7. Comments or suggestions regarding the CSU Master's Program in School Administration (continue on back, if desired).

____
Signature and School System (optional)

Appendix D

RESPONSE SHEET (SUPERIOR)

Based on your knowledge of the administrative performance of the person named on the cover sheet, please give your evaluation of the CSU College of Education Masters Program in School Administration in each of the following areas. If you have no basis for evaluation on any item, circle the NB.

1. Preparation in the area of Instructional Program (including such areas as program organization, curriculum development, program evaluation).

NB 1-------------2-------------3-------------4-------------5
No Weak Moderate Strong
Basis

2. Preparation in the area of Student Personnel (including such areas as discipline, guidance, student information and records).

NB 1-------------2-------------3-------------4-------------5
No Weak Moderate Strong
Basis

3. Preparation in the area of Staff Personnel (including such areas as recruitment and selection, supervision, evaluation, professional development).

NB 1-------------2-------------3-------------4-------------5
No Weak Moderate Strong
Basis

4. Preparation in the area of School Community Relations (including such areas as communications, interpreting community attitudes, building relationships with community members).

NB 1-------------2-------------3-------------4-------------5
No Weak Moderate Strong
Basis

5. Preparation in the area of Business Management (including such areas as finance, budgeting, capital improvements, food service, transportation).

NB 1-------------2-------------3-------------4-------------5
No Weak Moderate Strong
Basis

6. Overall preparation in School Administration.

1-------------2-------------3-------------4-------------5
Weak Moderate Strong

7. Comments or suggestions regarding the CSU Master's Program in School Administration (continue on back, if desired).

____
Signature and School System (optional)

SOME MEASURES UTILIZING ALUMNI AND EMPLOYER FEEDBACK IN THE ASSESSMENT OF PROFESSIONAL MASTER DEGREE PROGRAMS

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Introduction

Professional master degrees constitute a growing majority of all master degrees awarded annually in this country. (1) The growing needs of government at all levels and businesses for large numbers of competent middle and upper level management persons and other service specialists have been addressed in part by colleges and universities via the professional masters degrees, which usually range from thirty to sixty semester hours of course work and related requirements. The degree recipients may be, for example, a supervisor or manager in a hospital, municipal, state, or federal government office or agency workers; in business, education, social work, or as public librarian or an art therapist. These individuals' preservice and in-service education have become an important growing major part of our graduate education whether on a part-time, full-time, traditional, or non-traditional basis.

The condensed paper is directed at encouraging and improving assessment input from the graduates and their employers. The in-depth assessment by users of our programs and "products" seems often to have been given little attention in the past. Every day we as consumers evaluate the products and services we use; and most employers periodically review their employees qualities and performances for promotion, development, reassignment, termination, etc. Colleges and universities must at least periodically review and make judgments about their professional program efforts and "products" in order to have them relevant and competent.

Among various aspects covered in this paper are: (1) the use of exit interviews with graduates (particularly), (2) the nature of questionnaires and interview follow-up of alumni and selected employers, (3) the desirability of an institutional assessment cycle such as five years (illustrated by Trenton State College practice) which is part of continual evaluation picture, and (4) characteristics of such successful review programs including (A) top administrative support (such as leadership, planning, finances), (B) internally generated modivation and participation, and (C) the nature of the evaluative processes and procedures. The author has had personal experiences in the assessment activities discussed in this paper as a professor and academic administrator.

I. Use of Exit Interviews with Graduates

Exit interviews with graduate students just prior to or immediately after receipt of their masters degree are particularly important to program assessment of outcomes particularly as they affect the students. Such interviews with the new graduate can readily relate to an identifiable program and provides the opportunity to secure feed-back information from all students. One ideal time for a group interview between the to-be-graduates and the graduate faculty would be near the end of the semester in the required or last culminating course. This group interview would not replace individual interviews by the graduate faculty.

Frequently in the individual exit interview or conference the faculty-graduate student relationship encourages discussion of future career goals and the willingness of graduates to respond from time to time from the field about personal professional in-service needs and job needs of the organization. Such information may appear to have relevance for continuing education; occasionally, it could affect the present program. The positive personal-professional relationship of faculty and graduate can produce a continual supply of new students (enrollments) and assessment information (that is if the graduate will continue to keep the department up to date as to address and/or position).

II. Use of Questionnaires and Interview Follow-up of Alumni and Selected Employees

On the use of questionnaires to alumni of the graduate program, there should

be proper consideration given to persons who have been away from the program for many years (such as over five years) and those persons who are recent graduates (such as up to five years). Persons receiving the assessment instrument for the third or more time should be asked more about how their position requirements (competencies) have changed, increased, and/or trends, and needs. Perhaps a large percent of these early alumni are great distances from campus; thus their written comments/advice can give more than just a local or regional view.

One successful approach in beginning an assessment with the alumni is to have them evaluate the extent that the major objectives of each of the required and most "enrolled-in" elective courses and experiences, such as internships, practicums, and cooperative arrangements have been achieved. For example, the graduate program at Trenton State College which is currently being reviewed (including an out-of-state consultant visitation in late March) is that of a Developmental Reading Program. The program was formulated over five years ago using the International Reading Association standards and interpretations within the courses, experiences, and procedures. Appendix I (three pages) illustrates how the graduate faculty of that department undertook the review (assessment) of the major objectives of specific courses (please note that the three pages are a part of the total instrument). The total questionnaire was sent to all sixty graduates; thirty-nine responded by the initial review of responses. All graduates were employed when they undertook the program, and the same requirement exists for current students since it is an in-service program for part time students. (See footnote 2 regarding part-time graduate enrollment in the United States for the 1978 fall semester.)

After receiving the questionnaire responses and interpreting them, the graduate supervisor (faculty member) of the program reviewed them and other related items with alumni where possible in a three-state area (New York, Pennsylvania, and New Jersey) on an individual or small group basis. Where three or more graduates were employed by the same school system, the graduate supervisor holds a conference with their supervisor to discuss that individual's concept and evaluation of the program as well as desired changes or emphasis. Such recommendations are reviewed by the departmental faculty and are contained in the written report prepared for the out-of-state consultant.

The interviews (in depth) with alumni in the field and with employers constitute the most viable analysis and feed-back for the present and future programs. Since alumni of the current program are in many different school systems and usually there is not three graduates employed in each system, consideration is being given by the department to requesting the employee and the school supervisor to jointly comment about the program, its content, procedures, resources, and future needs of the school system relative to the program. A supervised practicum is part of the present program so that frequently discussion of these items by the graduate faculty supervising the practicum occurs during the semester. Legally obtained employee feed-back under the earlier mentioned procedures has provided valuable assistance in program development.

III. Alumni and Employer Input as Component of Cycle Assessment Process

While the use of exit interviews of persons to be graduated takes place each semester, graduate institutions should plan an internal cyclical arrangement to review their programs. For example, approximately one-fifth of the graduate programs at Trenton State College are formally reviewed by the respective departments and college administration with out-of-state consultants who are approved by the New Jersey Department of Higher Education. These formal reviews are in addition to the Middle States Association(MSA)and special groups such as National Council for Accreditation of Teacher Education (NCATE), National Association of Schools of Music; however, assessment of other activity during the particular year scheduled for reaccreditation of the first two groups (1984-85) will be directed toward those associations' requirements. The input by employers via interviews has been most helpful in review of program objectives and possible changes. Both MSA and NCATE include (expect) such feed-back information under specific standards. Thus the Graduate Office and the departmental faculty have the benefit of organized alumni and selected employer feed-back at least three times every ten years - twice via the internal review process and once for the reaccredition review.

IV. Some Additional Major Characteristics of Successful Assessment Programs

Among the major characteristics which have enhanced the success and acceptability to faculty of these review efforts have been the following: (A) top administrative support for the process, (B) internally generated modivation and participation, and (C) the cooperative nature of the evaluative processes and procedures.

Administrative support from the President's office to the Dean and Chairperson level is necessary and usually vital to the outcomes. Willingness to provide finances for outstanding consultants, for conducting the internal reviews (such as travel costs for interviews, tabulating results, recall of institutional data, and the institutional research office component staff time) provide the graduate faculty and the Graduate Dean's office with basic supporting services.

Internally generated review programs utilizing all affected persons (students, alumni, faculty, administrators, employers) provide an environment for program development (and improvement). By the graduate community undertaking its own organized reviews with agreed upon expert consultants and under a climate not requiring accreditation or reaccreditation, the changes (and professional responsibilities) for objective, constructive, and confirmative recommendations are excellent.

The need to have faculty and administrative acceptance of the procedures and process is essential. The administrative aspect has already been noted. The process of developing an evaluation system, conducting the evaluation, and working to effect the recommended steps for further enhancement of the program is a cooperative endeavor of the faculty and administration. Dressel notes:

> Evaluation done with or for those involved in a program is psychologically more acceptable than evaluation done to them. When doubts already exist,

when decisions are pending, and when concrete evidence is truly desired, the evaluator gains greater cooperation and finds a readiness to study and act upon findings. Evaluation carried out in this context usually brings gradual rather than radical change and is, accordingly, much less threatening. In fact, most change in education is incremental rather than radical, and advertising of this fact would improve the climate for evaluation. (3)

A Concluding Note

Regular, organized efforts by graduate institutions to secure valid employer and alumni responses (assessments and ideas for changes in programs to meet new requirements) via personal interviews may appear time consuming for faculty involved. But most faculty have been more receptive to this feed-back for needed changes than any other local source. Internally generated program reviews cooperatively done enhance the chances that the incremental changes will not have to wait for ten years or longer under the accreditation process. The small additional annual cost will make more likely vigorous, relevant programs.

Bibliography and Footnotes

1. The following information regarding major selective fields in which masters degrees were awarded nationally from 1972 to 1976 is from the National Center for Educational Statistics data:

Fields	1972	1973	1974	1975	1976
Education	98,300	105,600	112,700	120,200	128,400
Business	30,500	31,200	32,800	36,500	42,700
Public Affairs	9,600	11,200	12,700	15,500	17,300
Health Professions	7,400	8,500	9,700	10,800	12,700
Engineering	17,000	16,600	15,400	15,400	16,400
Psychology	5,300	5,900	6,600	7,100	7,900
Social Sciences	17,500	17,400	17,300	16,900	15,900
Letters	12,800	12,400	12,200	11,900	11,400
Physical Sciences	6,300	6,300	6,100	5,800	5,500
Biological Sciences	6,100	6,300	6,600	6,600	6,600
Mathematics	5,200	5,000	4,800	4,300	3,900

2. The "Report on the Council of Graduate Schools—Graduate Record Examinations Board 1978-79 Survey of Graduate Enrollments" by Bernard V. Khoury, Program Director, GRE, Educational Testing Services dated November 29, 1978 reports in Table 6, page 10 that on the basis of 78% of the CGS institutions "which accounted for appropriately 75% of the 1977 total student enrollment of CGS institutions" 81% of graduate students at its member institutions where the master's degree is the highest awarded degree are part-time; at the member doctoral degree institutions the percent for all higher degrees it is 53%.

3. Paul L. Dressel, Handbook of Academic Evaluation, San Francisco: Jossey - Bass, 1976. p. 5

APPENDIX I

TRENTON STATE COLLEGE
Trenton, New Jersey

GRADUATE DEVELOPMENTAL READING PROGRAM QUESTIONNAIRE
Part II: Reading Program Evaluation

The Graduate Developmental Reading Program was designed to develop understandings, knowledges, concepts, attitudes, and skills that would enable a person to become a developmental reading specialist. Certain of the capabilities were measured through examinations, papers, and readings; others were performance oriented and evaluated in practice and seminar situations; still others were measured through large and small group discussions.

Please read the statements below and evaluate the effectiveness of the professional sequence of your graduate developmental reading program.

Use the following scale to rate all statements:

1- Outstanding
2- Above Average
3- Adequate

4- Below Average
5- Inadequate
6- Not Applicable/Unknown

A. The courses in the graduate developmental reading program helped me to:

1. Understand the place of language in a cultural system. 1.______
2. Understand those linguistic principles that have relevance for the reading program, i.e., language is basic to reading instruction. 2.______
3. Analyze speech for identification of developmental language patterns and for dialectical patterns. 3.______
4. Utilize linguistic and psychological principles in planning for reading instruction and in evaluating instructional materials. 4.______
5. Understand the perceptual, physiological, and psychological bases as well as sociological influences of communication. 5.______
6. Understand the contributions of phonology and morphology to the decoding skills. 6.______
7. Understand the relationship between the morphemic and syntactic structure of language and the comprehension skills. 7.______

8. Apply significant research findings to the teaching of reading in order to:
    - a. identify methods appropriate to instruction 8.a.______
    - b. select appropriate materials 8.b.______
    - c. develop comprehension skills/abilities 8.c.______
    - d. develop decoding skills 8.d.______
9. Apply the skills needed to:
    - a. develop objectives for a sequential reading program 9.a.______
    - b. select materials appropriate to the needs of individuals 9.b.______
    - c. select methods of instruction appropriate to the needs of individuals 9.c.______
    - d. assess and/or evaluate the results of instruction 9.d.______
10. Develop skill in the:
    - a. administration of diagnostic instruments 10.a.______
    - b. interpretation of diagnostic results 10.b.______
    - c. selection and utilization of materials and methods based upon the results of the diagnosis. 10.c.______
11. Apply criteria and techniques for analyzing current approaches to the teaching of reading. 11.______
12. Apply criteria and techniques for evaluating materials for use in a school system. 12.______
13. Apply basic principles of reading to classroom instruction. 13.______
14. Analyze and evaluate instructional procedures used in a classroom 14.______
15. Evaluate pupil progress in reading. 15.______

B. Evaluate the following and continue to use the scale above:

1. Practicum and Seminar 1.______
2. Laboratory Experience in Testing 2.______
3. Supervision by College Supervisors 3.______
4. Instruction Received in Your Total Program 4.______
5. Advisement Received in Your Program 5.______

C. What do you consider the strengths of the Graduate Developmental Reading Program to be? Please use the space provided for your answer.

D. What recommendations would you make that would strengthen the Graduate Developmental Reading Program? Please use the space provided for your answer.

Thank you for your cooperation and help in this endeavor.

CRITERION REFERENCED EVALUATION OF A MASTER'S IN BUSINESS ADMINISTRATION PROGRAM

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For several years the School of Business at this University has offered an M.B.A. degree. During this time, several studies of the effectiveness of this program have been conducted [3, 6, 7]. The primary limitations of these studies had been that either: (1) the effectiveness criterion of the program was the graduate grade point average of the students [3, 6]; or (2) when another effectiveness criterion had been used, the study was limited to only a part of the program [7].

The purpose of the current criterion referenced evaluation program was to develop a procedure that would measure the effectiveness of the total M.B.A. program with a criterion variable separate from achieved graduate grade point average. The purpose of this paper is to describe the procedure that has been developed and to discuss some of the preliminary findings of this evaluation process.

Structure of the M.B.A. Program

The M.B.A. is a multi-disciplinary graduate program in business. The program at Southern Illinois University-Edwardsville consists of 20 courses. Fifteen of these courses are required of all students and 5 are electives. Eight of the 15 required courses are designated as the "Foundation Courses" and usually are taken in the first year of the program. The remaining 7 required courses are designated as "Advanced Courses" and are taken in the second year of the program. The 5 elective courses normally are taken in the second year of the program and can be courses taught by any of the departments in the School of Business. This program is offered in both a week-night and a weekend format.

The required courses are taught by five different departments. The departments and the number of courses taught by each are: (1) Accounting and Finance--4 courses; (2) Economics--2 courses; (3) Management--4 courses; (4) Management Systems--3 courses; and (5) Marketing--2 courses. The M.B.A. Program Director is responsible for coordinating and directing this program. The Program Director reports to the Dean of the School of Business. It should be noted that while the Program Director does have responsibility for the M.B.A. degree, faculty members hold rank and tenure in one of the five departments listed above. This, then, is not the most desirable organizational arrangement in which to conduct an extensive program evaluation.

THE EVALUATION PROCEDURE

The basic design of the evaluation procedure is a Pre-Test, Post-Test, Control Group design [2]. The experimental group is the weekend format while the control group consists of the week-night format. Both the pre-test and the post-test are criterion referenced examinations [3].

In order to develop the criterion referenced examinations, a common course syllabus was generated for each required M.B.A. course. A bank of multiple choice questions then was created for each course. These questions were keyed to various sections of the common outline. All of these tasks were conducted by groups of faculty members who normally taught each course.

These questions were reviewed and edited in order to eliminate any obvious inconsistencies. They, then, were item-validated by administering them to a cross-section of students in both the weekend and week-night program formats. Each of the questions was analyzed by means of biserial correlations

and the results were disseminated to the various faculty members who had submitted the items [4]. Those questions with a positive biserial of .25 or greater were retained in the question bank, and those below that value were returned for revision and subsequent revalidation.

The pre-test and post-test were drawn from the question bank in the proportions specified by the faculty groups. The pre-test (diagnostic) is administered to students as they enter the program. Approximately every six months after this, students are given a post-test for each course taken during that six months. In order to successfully complete the program, students not only must receive a passing grade in each course but also must "pass" the post-test (comprehensive) for that course. The administration of these examinations is outside of class time and is conducted by a special staff not associated with the teaching of the courses.

When the examinations have been completed and scored, the results are distributed to the students. These are reported as "high-pass," "pass," "low-pass," or "fail" scores. Summary data also are distributed that permit students to know how well each course section did in comparison with the overall performance on each series of post-tests.

Findings of the Study

This study is still continuing, and these findings should be considered as preliminary findings. The evaluation procedure has had a rather substantial impact on both students and faculty. Students have become quite interested not only in what the instructor teaches, but also in the material contained in the common outlines. Whenever there is substantial deviation between the material in a class and the material in the common outline, the students are quick to complain. When the evaluation program was first introduced, there were some complaints registered by the students about the testing program as a whole. After the first shock wave of complaints subsided, however, subsequent complaints have become instructor related rather than evaluation related.

Faculty members have become more interested in the evaluation process and much more interested in participating in the design of the courses and common outlines. Faculty members also have become interested in the evaluation process as a source of data that could result in publications for them.

Impact on Admission Criteria

Admissions to the program have been based primarily upon the "formula" specified by the American Assembly of Collegiate Schools of Business (AACSB). This formula is: $P=[(200)(U)]+G$, where P = Points, U = Undergraduate Grade Point Average, and G = Graduate Management Admissions Test Score [1]. The previous studies of the program indicated that the Undergraduate Grade Point Average (U) had not been especially effective in predicting Graduate Grade Point Average [2, 4].

The current data confirm these findings and further indicate that Undergraduate Grade Point Average is not an effective predictor of performance on the criterion referenced examinations either. It thus appears that the AACSB formula is too heavily weighted toward the U component and that an improved formula is needed. There also is some indication that the nature of the undergraduate major could be used as an additional predictor of performance in the M.B.A. program.

Impact on Instructional Formats

One of the primary objectives of the evaluation program is to compare the weekend and week-night formats. At the present time, there are not enough

observations in both of these groups to draw even preliminary findings. Data have been collected, however, that provide certain useful information about the two formats, e.g., the grades in the weekend format are higher than in the week-night format.

Another factor that is apparent from the available data is that the "difficult" courses in the program are difficult in both the weekend and the week-night formats. There is some indication, also, that the "instructor" has a substantial impact on the success of students on the criterion referenced examinations. It does not appear, however, that faculty members who previously have been considered "effective" are always associated with high achievement on the comprehensive examinations.

Impact on Individual Courses

Some analysis has been completed on the criterion scores in each of the foundation courses (eight, first year required courses). This indicates that, in general, the predictors for the overall program hold for each of the foundation courses. When there is variation, it is in logical direction (in the highly quantitative courses, the quantitative component of the GMAT is a better predictor than the overall GMAT score).

Future data analysis will include a comparison of the performance in each of the major "outline" components of each course. This statistical analysis will permit a determination of the difficult areas in each course when key variables are held constant. This should assist the faculty in selecting pedagogical techniques which better achieve their stated objectives.

Impact on Instructor Evaluation

The program evaluation procedure will provide some additional input that can be used in measuring the effectiveness of various faculty members. As this data is based on the criterion referenced examinations, it will have a higher degree of reliability than that which is normally available from sources such as syllabus analysis, student evaluations, and classroom visitations. It is not expected, however, that this data will be the only means of evaluating teaching effectiveness, or even that it should be the most important means of evaluating teaching effectiveness. It is expected that when these data are available, the perceived effectiveness level of faculty members will be increased more often than decreased.

Perhaps even more important, the evaluation procedure can be used to assist individual faculty members in identifying problem areas of instruction. As an example, if a faculty member's students are having difficulty with the "legal environment" component of a course, the instructor could attempt to improve performance by various pedigogical devices. The subsequent performance of these students would give some indication as to how successful a given device had been.

Overall Impact

The evaluation process has had a rather salubrious impact on the M.B.A. program. Faculty members are discussing course content more frequently. These discussions are not superficial discussions, but appear to be rather substantive. There also is a growing amount of discussion about the operational definition of various course objectives. On somewhat fewer occasions, discussions are held about the nature of the M.B.A. program and how the various courses relate to that nature. As more data become available, it is expected that these discussions will become more frequent and more widespread. It is expected that this criterion referenced evaluation effort will produce profound, long-run improvements in the content, pedigogical approaches, and the effectiveness of our M.B.A. program.

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